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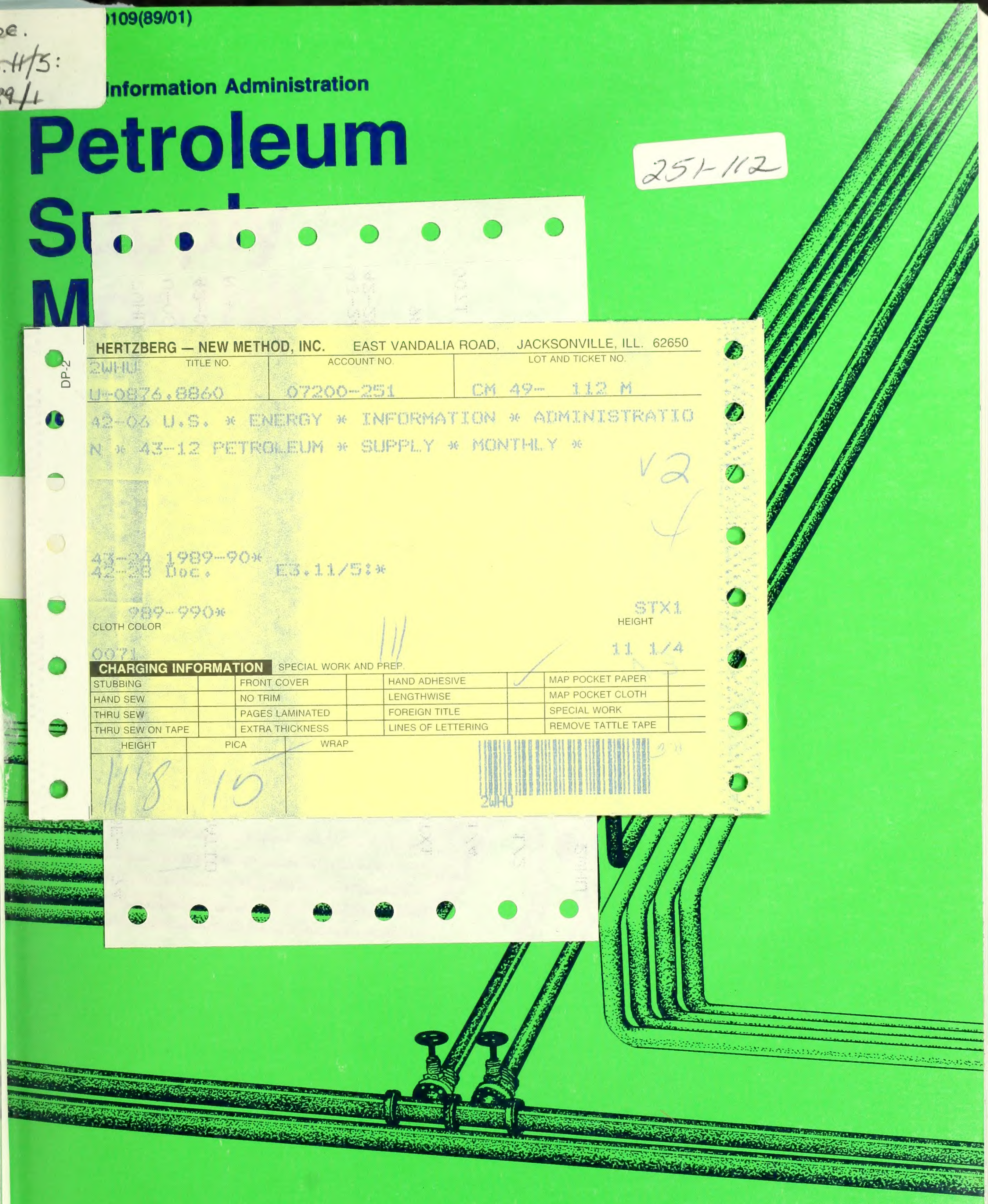

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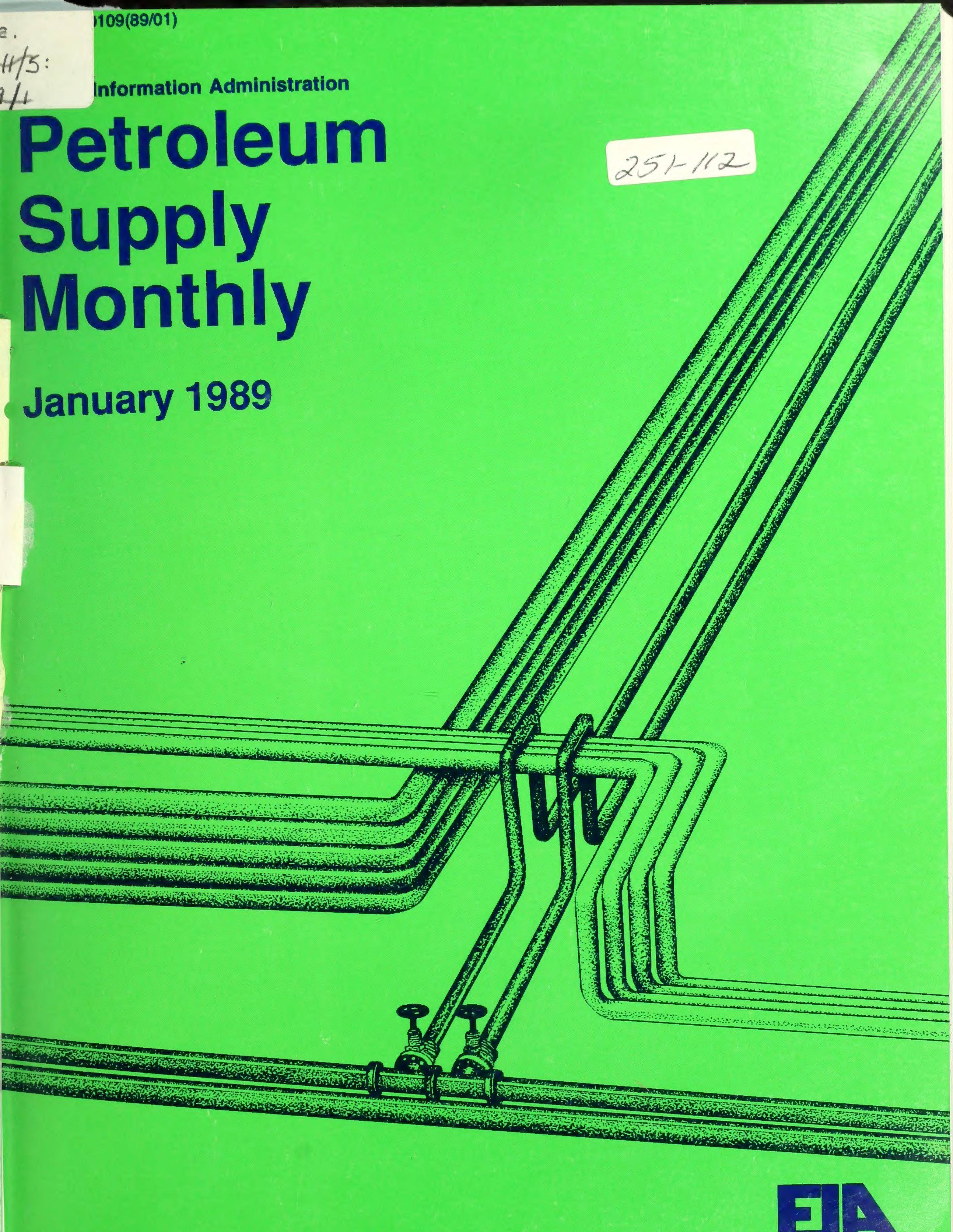
Petroleum Supply Monthly

251-112

January 1989



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Cover: An artist's rendering of a typical pipeline network moving crude oil and petroleum products at a refinery complex.

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1989 Changes in the
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See Page xiii

Petroleum Supply Monthly

January 1989

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Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in "Primary Supply." Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

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Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988
Distillate Fuel Oil Outlook: Winter 1988/1989	July 1988
Comparison of Independent Statistics on Petroleum Supply	September 1988
U.S. Petroleum Developments: 1988	December 1988

Petroleum Focus

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

1989 Changes in the Petroleum Supply Monthly

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes have been made to the publication tables.

Data Source Changes

Bonded imports of jet fuel and fuel oils and imports of Liquefied Petroleum Gases (LPGs) previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from import statistics reported on the Form EIA-814, *Monthly Imports Report*.

General Table Changes

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) have been added.
- "Stock Withdrawal" has been renamed "Stock Change" and is a Disposition item rather than a Supply one. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks, where previously a positive number represented a stock withdrawal.
- A jet fuel total line has been added where applicable.
- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.
- Tables showing net imports by country for the current month and year to date (Tables 39 and 40) have been added.
- Table numbers have been changed as a result of data additions and table reorganization. A new to old reference chart is shown below.

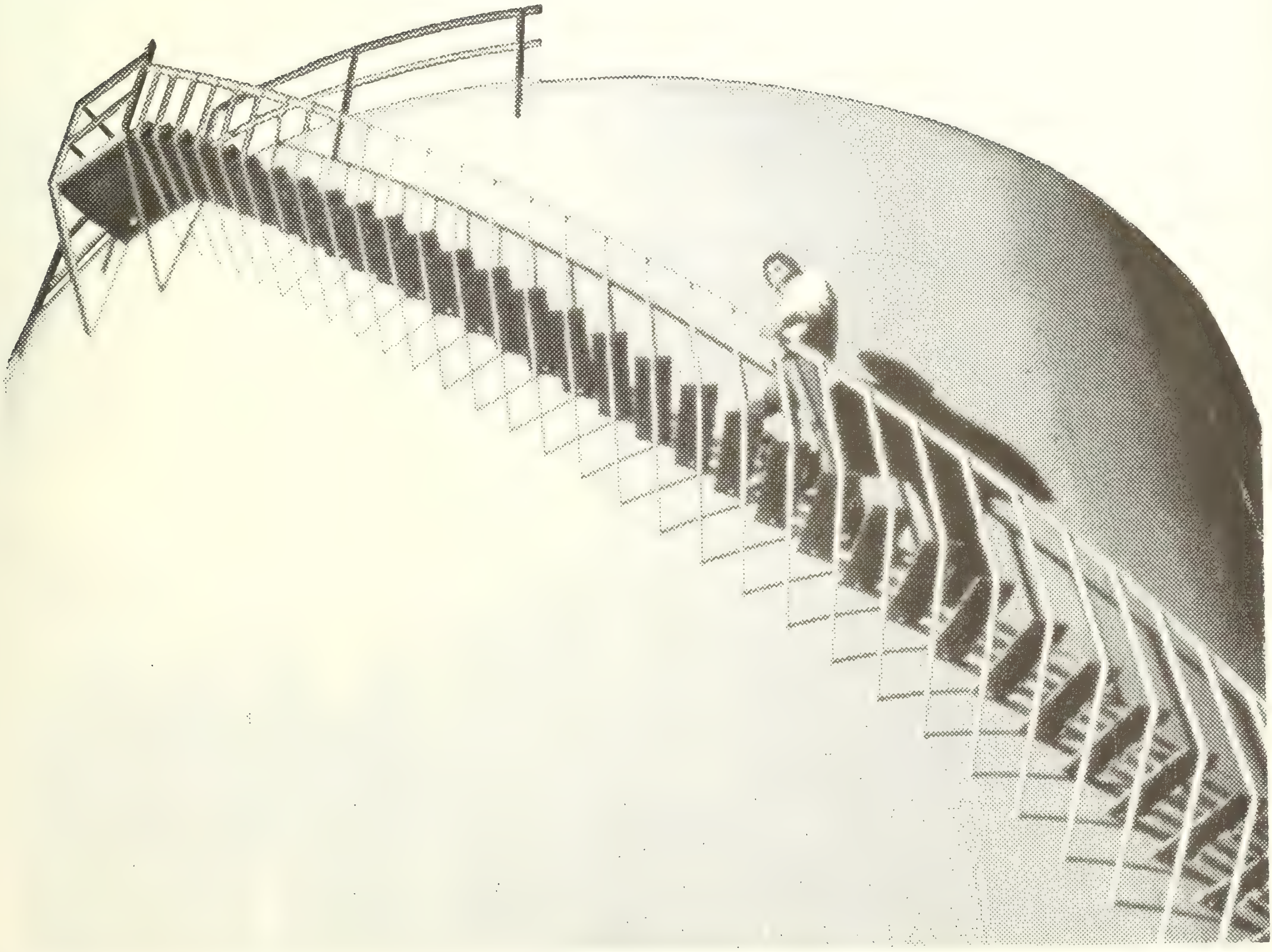
Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

Detailed Table Changes

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts"
    - Stocks at natural gas processing plants by Refining Districts have been moved from the old Table 24 stock table and included with net production of petroleum products at natural gas plants.
    - The reporting of products other than natural gas liquids by natural gas processing plants has been eliminated.
- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts"
    - Net production of olefins (ethylene, propylene, and butylene) has been added.
    - Net production of naphthenic and paraffinic lubricants has been added.
    - Net production of residual fuel oil by percent sulfur, previously published as Table 30, has been added.
- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts"
    - Stocks at refineries by Refining District have been added from the old stock table (Table 24).
    - Stocks of residual fuel oil by percent sulfur, previously published as Table 31, have been added.
- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin"
    - Data previously included in the "Other Products" category are displayed separately for the following products: naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
    - Sulfur content categories for residual fuel oil, previously published as Table 33, have been added.
- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination"
    - Data for exports by destination previously included in the "Other Products" category are displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.
- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District"
    - Refining District data have been dropped. Refinery stocks and natural gas processing plant stocks by Refining District have been added to Tables 17 and 20, respectively.
    - Sulfur content categories for residual fuel oil, previously published as Table 31, have been added.

Feature Article



A refinery worker makes his way around a towering storage tank to check the tank level.

U.S. Petroleum Trade Trends: 1988

by Dean Douglas

The volume of U.S. crude oil and petroleum product imports increased for the third consecutive year in 1988.[1] The forces driving this trend are now familiar - - declining U.S. crude oil production, low petroleum prices, and a growing demand for petroleum products. In 1988, as demand returned to the levels of 1979 and 1980, the highlights in petroleum trade were:

- Petroleum imports reached their highest volume since 1979.
- Net petroleum imports (gross imports less exports) accounted for 37 percent of U.S. petroleum product supplied, the same level as in 1980.
- Dependence on the Organization of Petroleum Exporting Countries (OPEC)[2] for U.S. petroleum supply increased to 48 percent of total imports.
- Exports reached a record high for any year.

In 1988, U.S. daily average petroleum gross imports reached 7.2 million barrels per day, which exceeded 1987 volumes by 494,000 barrels per day. Most of the increase was in crude oil imports, which reached 5.0 million barrels per day. Petroleum product imports reached 2.1 million barrels per day.

The continuing growth of imports throughout 1988 reflects the long term trend. Average import volumes in the fourth quarter exceeded those in the first quarter by 756,000 barrels per day. Prices of imported crude oil in the fourth quarter were, on average, more than $2 per barrel below first quarter levels and this helped spur imports at the end of the year. The year began with the price of imported crude oil at $16.10 per barrel in January and ended with the price at $14.08 in December. The average price for the year was $14.64 (in 1988 dollars).[3] In constant dollars this was the lowest price since 1973.

Exports of crude oil and petroleum products reached a record high of 819,000 barrels per day in 1988. Except for the record volume, exports followed the usual trade patterns. Product exports accounted for the largest share of the increase, reaching 661,000 barrels per day in 1988. Crude oil exports were 159,000 barrels per day, the highest since 1985. To a large extent the growth in exports paralleled the growth in imports, and exports remained about 11 percent of imports for the second consecutive year.

Total net imports for 1988 exceeded 1987 volumes by 439,000 barrels per day. The average daily net imports of 6.4 million barrels per day accounted for 37 percent of total product supplied (demand) in 1988, the highest dependency level since 1980. By providing 48 percent of total petroleum imports, OPEC increased its share of imports for the third consecutive year.

Total Petroleum Imports

As the volume of total petroleum imports increased, imports of crude oil and products came from traditional sources as well as from some relatively new sources. Because the volume of

---

[1] Imports include the receipt of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands and other U.S. possessions and territories.

[2] The Arab members of OPEC are Algeria, Kuwait, Libya, Qatar, Iraq, Saudi Arabia and the United Arab Emirates. Other members are Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela.

[3] Energy Information Administration, *Petroleum Marketing Monthly,* December 1988, DOE/EIA-0380 (88/12), Table 1.

Note: Unless otherwise referenced, data in this article are based on information published in the *Petroleum Supply Monthly,* December 1988, DOE/EIA-0109 (88/12), Tables S1-8, 19, and 22; and *Petroleum Supply Annual,* 1981-1987, DOE/EIA-0340, Volume I. These publications include data from the EIA-814 "Monthly Imports Report" survey and Bureau of the Census IM-145, EM-522, and EM-594. All data through 1987 are considered final and are not subject to further revision. Data for 1988 are preliminary and will be revised and published at a later date in the *Petroleum Supply Annual* 1988.

U.S. crude oil imports is about 2-1/2 times the volume of product imports, crude oil suppliers dominate the list of sources. A growing number of crude oil producers are, however, becoming major product suppliers.

In the last 3 years OPEC, especially Saudi Arabia, has recaptured its dominant role as a supplier of crude oil and petroleum products to the United States (Figure FE1). Five of the top ten suppliers in 1988 were members of OPEC (Table FE1). Arab OPEC supplied about 25 percent and other OPEC sources about 22 percent to make up the total of OPEC imports. The balance of 52 percent, a volume of 3.7 million barrels per day, was provided by non-OPEC sources.

OPEC suppliers of both crude oil and petroleum products are shown in Table FE2 for 1983 through 1988. Among these sources, Iraq had the largest percentage increase supplying 343,000 barrels per day in 1988 compared with only 83,000 in 1987. This large increase was due, in part, to the completion of pipeline expansions to the Mediterranean and to the Red Sea as well as the end of its military conflict with Iran. By volume, Saudi Arabia's increase was the largest, moving up by 311,000 barrels per day or 41 percent more than in 1987.

Table FE1. Ten Largest Suppliers of Total Petroleum Imports, 1988
(Thousand Barrels per Day)

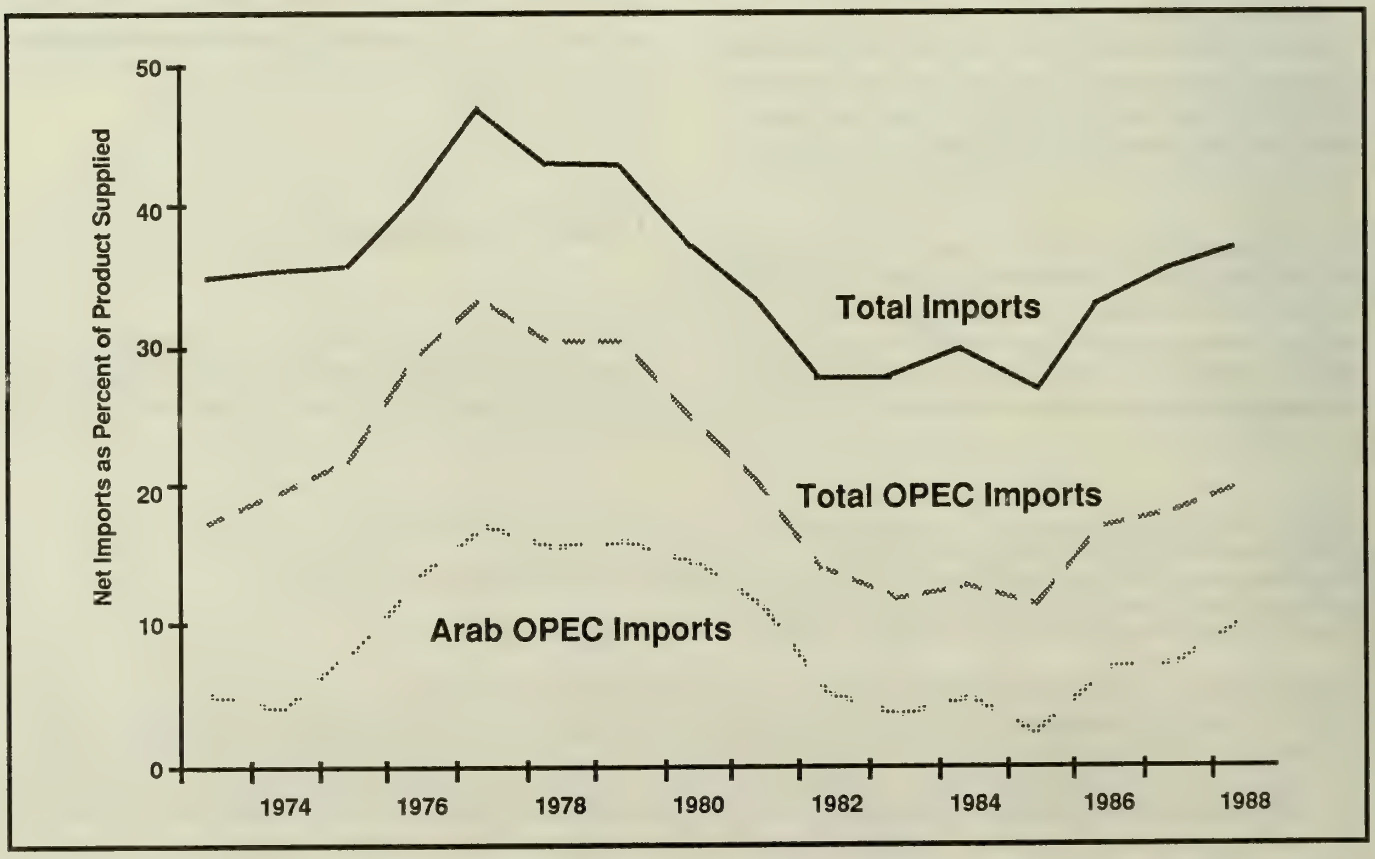
Country		Percent of Total Petroleum Imports
Saudi Arabia[1]	1,062	14.8
Canada	976	13.6
Venezuela[1]	779	10.9
Mexico	740	10.3
Nigeria[1]	568	7.9
Iraq[1]	343	4.8
United Kingdom	311	4.3
Algeria[1]	294	4.1
Virgin Islands	241	3.4
Angola	200	2.8
Total	5,514	76.9
Total Other	1,658	23.1
Total Imports	7,172	100.0

[1] OPEC members.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, December 1988, DOE/EIA-0109 (88/12), Table 19.

Figure FE1. U.S. Dependence on Petroleum Net Imports, 1973-1988



Sources: Energy Information Administration, *Monthly Energy Review*, December 1988, DOE/EIA-0035 (88/12), Table 1.8 .

Table FE2. Total Crude Oil and Petroleum Product Imports from OPEC, 1983-1988
(Thousand Barrels per Day)

Country	1983	1984	1985	1986	1987	1988
Saudi Arabia	337	325	168	685	751	1062
Venezuela	422	548	605	793	804	779
Nigeria	302	216	293	440	535	568
Iraq	10	12	46	81	83	343
Algeria	240	323	187	271	295	294
Indonesia	338	343	314	318	285	190
Kuwait	14	36	21	68	84	92
Ecuador	61	55	67	77	29	47
Gabon	59	58	52	26	35	16
UAE	30	117	45	44	61	28
Iran	48	10	27	19	98	(s)
Qatar	(s)	5	(s)	13	0	0
Libya	0	1	4	0	0	0
Neutral Zone[1]	- -	- -	- -	- -	- -	9
Total	1,862	2,049	1,830	2,837	3,060	3,428

[1] Beginning in January 1988, imports of crude oil and petroleum products from the Neutral Zone are shown separately. Prior to January 1988, these data were included with imports from Saudi Arabia and Kuwait.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (1983-1987); *Petroleum Supply Monthly*, December 1988, DOE/EIA-0109 (88/12), Table 19.

Imports from some OPEC members declined in 1988. The largest decline occurred in supplies from Iran due to the U.S. embargo, followed by Indonesia, United Arab Emirates, Venezuela, and Gabon.

The leading non-OPEC suppliers were Canada and Mexico. Both increased the volumes they supplied to the United States by over 13 percent above their 1987 levels, reflecting the transportation advantage in importing from nearby sources.

Crude Oil Imports

Crude oil imports averaged 5.0 million barrels per day in 1988 compared with 4.7 million barrels per day in 1987. The increase in imports came primarily from the Persian Gulf countries.

The ten largest suppliers of crude oil to the United States in 1988 are shown in Table FE3 along with the percent of the total crude oil imported from each. While crude oil was supplied by many countries throughout the world, 86 percent of the total came from these ten sources.

For the second year in a row, Saudi Arabia was the largest supplier of crude oil. At 901,000 barrels per day, Saudi Arabian imports were 18 percent of the total crude oil imported in 1988. This was 259,000 barrels per day more than the volume supplied by Saudi Arabia in 1987 when their crude oil comprised 14 percent of total U.S. crude oil imports. During 1987 and 1988, crude oil imports from Saudi Arabia ranged from a high of 1.2 million barrels per day in December 1988 to a low of 320,000 barrels per day in April 1987. In contrast, as recently as 1985, Saudi Arabian imports dropped to a yearly low of 132,000 barrels per day.

Mexico was the second largest supplier of crude oil in 1988, providing an average of 672,000 barrels per day. This was an increase of 70,000 barrels per day over the volumes supplied in 1987. The third largest supplier was Canada, providing 669,000 barrels per day in 1988 -- 61,000 barrels per day more than in 1987. The largest increase in crude oil imports came from Iraq, supplying 341,000 barrels per day in 1988, or 259,000 barrels per day more than in 1987. The 1988 top ten list contains nearly the same countries as in 1987; the only change is the replacement of Colombia by Iraq. Six of the top ten crude oil suppliers were OPEC members.

OPEC supplied 53 percent of all crude oil imports in 1988 with Arab OPEC supplying 29 percent at 1.5 million barrels per

Table FE3. Top Ten Crude Oil Suppliers to the United States in 1988 Compared with 1987

(Thousand Barrels per Day)

Country	1988	Percent of Total Crude Imports	1987	Percent of Total Crude Imports
Saudi Arabia[1]	901	17.9	642	13.7
Mexico	672	13.3	602	12.9
Canada	669	13.3	608	13.0
Nigeria[1]	557	11.0	529	11.3
Venezuela[1]	437	8.7	488	10.4
Iraq[1]	341	6.8	82	1.7
United Kingdom	252	5.0	304	6.5
Angola	192	3.8	180	3.8
Indonesia[1]	180	3.6	262	5.6
Algeria[1]	114	2.3	115	2.5
Total	4,314	85.5	3,811	81.5
Total Other	731	14.5	862	18.5
Total Crude Oil Imports	5,045	100.0	4,674	100.0

[1] OPEC members.

Note: Total may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, December 1988, DOE/EIA-0109 (88/12), Table 19; *Petroleum Supply Annual* 1987, DOE/EIA-0340 (May 1988), Table 15.

day. Other OPEC sources supplied 24 percent of crude oil imports at 1.2 million barrels per day. Non-OPEC sources provided 47 percent of imported crude oil at 2.4 million barrels per day. The principal non-OPEC suppliers were Canada, Mexico, and the United Kingdom.

As in recent years, more than half of the crude oil imports (54 percent) came to the U.S. Gulf Coast. This is primarily due to the concentration of refinery capacity in that region. To a lesser extent, it is also due to the location of the Strategic Petroleum Reserve (SPR) near the Gulf Coast. The volume of foreign crude oil received by SPR during 1988 averaged 51,000 barrels per day, all of which came from Mexico. During the previous year, SPR received an average of 73,000 barrels per day.

Significant in 1988 was an increase in crude oil imports from non-OPEC developing countries. North Yemen became a first-time supplier during the year. Angola and Colombia remained significant suppliers for the second year in a row. (Colombia was the eleventh largest supplier, though volumes declined from 1987 due to internal pipeline disruptions.) Other developing countries providing increased volumes of crude oil included China, Congo, Malaysia, Benin, and Zaire. While supplies from these countries are relatively small, they are representative of a growing group of African, Asian, and South American countries whose cumulative total of crude oil supplies could become significant.

Petroleum Products

Product imports arrived at an average rate of 2.1 million barrels per day in 1988, the highest volume since 1977. Products made up about the same share of total imports in 1988 as in 1987, when the share was 30 percent, because of corresponding increases in crude oil imports for 1988.

OPEC supplied 35 percent of all product imports in 1988, slightly more than the 33 percent supplied in 1987. Arab OPEC supplied 17 percent of imported products while the rest of OPEC provided 18 percent. The largest percentage increase was credited to Saudi Arabia, up by 46 percent or 51,000 barrels per day over 1987 volumes. Only three OPEC members were in the top ten suppliers. Non-OPEC sources provided the balance, 65 percent, of imported product.

About two-fifths of all product imports came from three regional suppliers, Venezuela, Canada, and the Virgin Islands. A 28-percent increase in product imports from Canada more than offset the 11-percent decline in product imports from the Virgin Islands. The Virgin Islands was the only supplier in the top ten that provided smaller volumes in 1988 than in 1987. Canadian product imports exceeded 1987 volumes by 67,000 barrels per day. The major part of the increase in Canadian product imports was accounted for by residual fuel oil and finished motor gasoline.

The mixture of countries supplying product imports includes major crude oil producers that once supplied only crude oil, as well as some sources that traditionally provided mostly refined products (Table FE4). Most of these countries have upgraded their refineries in order to participate in the world product market and earn the higher return in foreign exchange. The 1988 imports of petroleum product from the ten largest suppliers exceeded the 1987 imports from the same sources by 164,000 barrels per day.

Several suppliers have increased the relative share of refined products in their total exports to the United States in recent years. Products accounted for 61 percent of Algeria's petroleum exports to the United States in 1988. Forty-four percent of the imports from Venezuela were products and about 31 percent of Canadian imports were products.

The leading imported product was residual fuel oil, followed by motor gasoline, unfinished oils, and distillate fuel oil (Table FE5). While Brazil has supplied some motor gasoline in recent years, it became the largest foreign supplier of that product in 1988 for the first time. Also for the first time Saudi Arabia became the largest supplier of unfinished oils. Venezuela was the top supplier of both residual fuel oil and distillate fuel.

The regional suppliers, Venezuela, Canada, and the Virgin Islands were major sources for the four products cited above, and supplied 42 percent of all product imports. More than two-thirds of all product imports were received on the U.S. East Coast. This region, particularly the Northeast, has traditionally relied on product imports that were as readily available from Caribbean and Canadian sources as from other pro-

Table FE4. Top Ten Product Suppliers to the United States in 1988 Compared with 1987
(Thousand Barrels per Day)

Country	1988	Percent of Total Product Imports	1987	Percent of Total Product Imports
Venezuela[1]	341	16.0	316	15.8
Canada	307	14.4	240	12.0
Virgin Islands	241	11.3	272	13.6
Algeria[1]	181	8.5	180	9.0
Saudi Arabia[1]	161	7.6	110	5.5
Brazil	96	4.5	84	4.2
Mexico	68	3.2	53	2.6
Spain	64	3.0	55	2.7
United Kingdom	58	2.7	48	2.4
Italy	57	2.7	53	2.6
Total	1,575	74.0	1,411	70.4
Total Other	552	26.0	593	29.6
Total Imported Products	2,127	100.0	2,004	100.0

[1] OPEC members.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, December 1988, DOE/EIA-0109 (88/12), Table 19; *Petroleum Supply Annual*, 1987 DOE/EIA-0340 (May 1988), Table 15.

Table FE5. Leading Sources for Major Product Imports, 1988
(Thousand Barrels per Day)

Country	Residual Fuel	Country	Motor Gasoline	Country	Unfinished Oil	Country	Distillate Fuel
Venezuela	97	Brazil	73	Saudi Arabia	92	Venezuela	88
Virgin Islands	79	Canada	47	Venezuela	53	Canada	64
Algeria	61	Venezuela	46	Virgin Islands	51	Virgin Islands	46
Other	356	Other	218	Other	154	Other	84
Total	593	Total	384	Total	350	Total	282

Note: Total may not equal sum of components due to independent rounding .

Sources: Energy Information Administration, *Petroleum Supply Monthly*, December 1988, DOE/EIA-0109 (88/12), Table 19.

ducing regions in the United States.

Primary Importers

The leading petroleum importers in the United States continued to be major integrated oil companies and the larger independents (Table FE6). Total imports by the top ten companies provided 49 percent of all imports in 1988. These importers are also domestic refiners, and more than 78 percent of their total imports was crude oil. The increase in crude oil imports in 1988 was due, in part, to the combination of low prices, higher demand, and the third consecutive year of decline in domestic oil production. Refinery utilization rates were at their highest in recent years, creating the need for additional crude oil feedstocks.

Exports of Crude Oil and Products

Exports[4] of crude oil and petroleum products reached a record high in 1988 of 819,000 barrels per day, about 7-percent higher than in the previous year. The 1987 exports were exceeded by 55,000 barrels per day.

Crude oil exports averaged 159,000 barrels per day, reflecting a 5-percent increase over 1987. More than 80 percent of crude oil exports went to the Virgin Islands. The next largest destination was Puerto Rico, followed by Canada. During 1988, crude oil exports continued to be limited to: 1) crude oil derived from fields under State waters of Alaska's Cook Inlet; 2) certain domestically produced crude oil destined for Canada; and 3) shipments to U.S. territories. These restrictions have now been altered by the implementation of the Free Trade Agreement with Canada which specifically permits 50,000 barrels per day of Alaskan North Slope crude oil to be exported to Canada.

Table FE6. Top Ten U.S. Petroleum Importers, 1988
(Thousand Barrels per Day)

Company	Crude Oil Imports	Product Imports	Total
Chevron	675	63	738
Texaco	445	41	486
Exxon	302	133	434
Amoco	309	13	322
Coastal	172	137	308
Shell	274	21	295
Amerada Hess	0	259	259
Sun	196	43	239
Koch	211	24	235
Citgo	194	38	232
Total	2,777	772	3,548
Total Other	2,268	1,355	3,624
Total Imports	5,045	2,127	7,172

Note: Totals may not equal sum of components due to independent rounding.
Sources: Energy Information Administration, Form EIA-814 "Monthly Imports Report."

Product exports set a record in 1988, averaging 661,000 barrels per day, an 8-percent increase over the 1987 level. Conforming to past trading patterns, the leading product exports were petroleum coke, residual fuel oil, and distillate fuel oil. Together, the three products accounted for 61 percent of all petroleum exports and 76 percent of all product exports. Higher volumes of products were available for export in 1988 because of the high U.S. refinery utilization rate. The high production levels of lighter products (primarily gasoline and distillates) also created additional supplies of petroleum coke and residual fuel which are surplus in the U.S. market.

The largest export product, at 231,000 barrels per day, was petroleum coke; this represents an increase of 18,000 barrels per day over 1987 levels. Petroleum coke, accounting for 35 percent of total product exports in 1988, dominates the product exports market, because other fuels (primarily coal and natural gas) are usually more competitive for domestic use and because practical transportation in the United States is limited to more costly U.S. flag vessels. Japan was the largest recipient of petroleum coke exports, receiving 25 percent of the total. Italy was the next largest recipient, followed by Belgium and Luxembourg.

The second largest product export was residual fuel oil, averaging 200,000 barrels per day. This was an increase of 8 percent over 1987. Almost identical volumes of residual fuel oil were exported to Mexico and Taiwan. Together, these countries accounted for more than 40 percent of the total exported. The third largest recipient was Japan, which received a daily average of 16,000 barrels per day.

Distillate fuel oil was the third largest export product with a volume of 69,000 barrels per day, slightly above the 1987 level. More than 29 percent of total distillate exports were sent to Japan. Canada was the second most frequent destination, followed by Peru.

The prevailing outlook is for imports of crude oil and petroleum products to continue to grow. Dependence on foreign sources is expected to reach 50 percent within a few years.[5] Crude oil imports will increase because of the declining production of domestic crude oil. Product imports are expected to increase because the utilization of domestic refining capacity is near its effective maximum.

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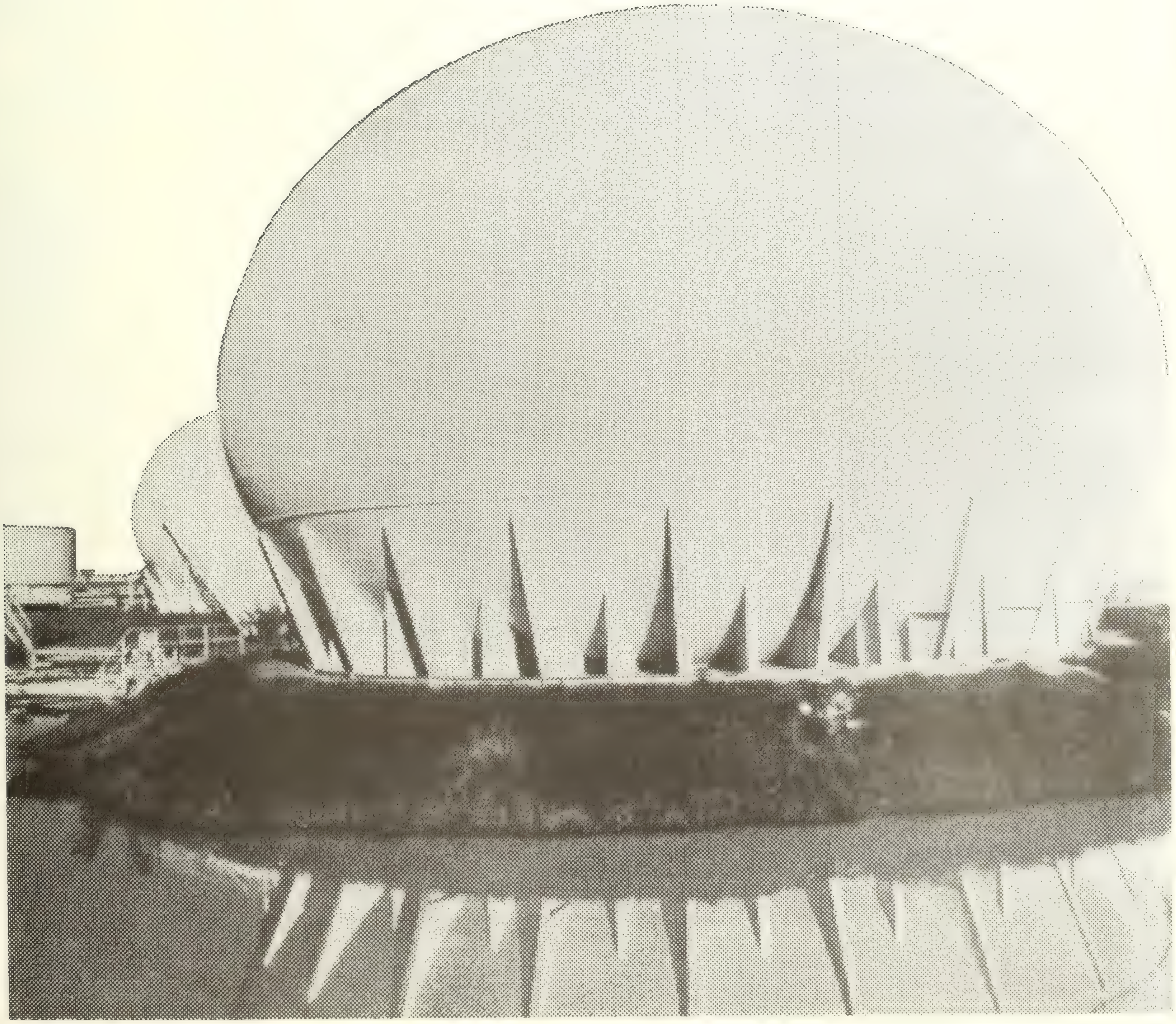
[4] Exports include all shipments of petroleum from the 50 States and the District of Columbia to foreign countries, Puerto Rico, Virgin Islands, and U.S. possessions and territories.

[5] Energy Information Administration, *Annual Energy Outlook 1989*, DOE/EIA-0383 (89), p. 9.

Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Total U.S. demand for petroleum products (measured as product supplied), after increasing 1.0 million barrels per day in December 1988, fell 1.2 million barrels per day in January 1989 to 17.2 million barrels per day. This was about the same as the demand for January 1988. A large drop in motor gasoline demand during the month, together with lesser but still significant decreases in distillate and residual fuel oils, accounted for 85 percent of the decrease in total demand during January.

Other January 1989 highlights include the following:

- Total product stocks increased 15.9 million barrels in January to 724.7 million barrels.
- Imports of crude oil, excluding the Strategic Petroleum Reserve (SPR), were 5.5 million barrels per day in January, an increase of 0.3 million barrels per day from the December level.
- Refinery utilization increased from 85.1 percent in December to 86.1 in January despite a drop in gross refinery inputs to distillation units.

Product Supplied

Motor gasoline demand decreased 0.6 million barrels per day in January to 6.7 million barrels per day, reflecting a normal shift in driving patterns following the holiday season. Accompanying the drop in motor gasoline demand was a decrease in motor gasoline production of 0.4 million barrels per day. This

The refinery utilization rate increased for the third straight month in January. The January rate was 86.1 percent, compared with 85.1 percent in December and 83.9 percent in November 1988.

Table H1. Petroleum Supply Summary, January 1989
(Million Barrels per Day, Except Where Noted)

Category	1989	1988	Difference[a]	1988
	January	December		January
Products Supplied	**17.2**	**18.4**	**-1.2**	**17.2**
Finished Motor Gasoline	6.7	7.3	-0.6	6.7
Distillate Fuel Oil	3.3	3.6	-0.3	3.5
Residual Fuel Oil	1.6	1.8	-0.2	1.6
Liquefied Petroleum Gases	2.1	2.0	(s)	2.1
Other Petroleum Products[b]	3.5	3.7	-0.2	3.3
Crude Oil	(s)	(s)	(s)	(s)
Crude Oil Inputs	**13.3**	**13.4**	**-0.1**	**13.0**
Refinery Utilization (percent)	**86.1**	**85.1**	**1.0**	**82.8**
Imports	**8.0**	**7.7**	**0.4**	**6.9**
Crude Oil	**5.5**	**5.2**	**0.3**	**4.6**
SPR	0.1	(s)	(s)	0.1
Other	5.5	5.2	0.3	4.6
Products	**2.5**	**2.5**	**0.1**	**2.3**
Finished Motor Gasoline	0.3	0.3	0.1	0.3
Distillate Fuel Oil	0.3	0.4	-0.1	0.4
Residual Fuel Oil	0.9	0.9	-0.1	0.7
Liquefied Petroleum Gases	0.2	0.2	(s)	0.2
Other Petroleum Products[b]	0.7	0.6	0.1	0.6
Exports	**0.8**	**1.0**	**-0.3**	**0.9**
Crude Oil	0.1	0.1	(s)	0.2
Products	0.6	0.9	-0.3	0.7
Total Net Imports	**7.3**	**6.7**	**0.6**	**6.0**
Stock Change[c]	**0.6**	**-1.1**	1.8	-0.3
Crude Oil	0.1	-0.2	0.3	-0.1
Products	0.5	-1.0	1.5	-0.3
Total Stocks at End of Period (Million Barrels)	**1,619.5**	**1,599.6**	**19.9**	**1,597.3**
Crude Oil	**894.8**	**890.8**	**4.0**	**888.2**
SPR	561.5	559.5	2.0	542.7
Other	333.3	331.3	2.0	345.5
Products	**724.7**	**708.8**	**15.9**	**709.1**
Finished Motor Gasoline	205.8	189.7	16.1	200.1
Distillate Fuel Oil	120.3	123.5	-3.2	127.2
Residual Fuel Oil	47.0	44.5	2.4	46.6
Liquefied Petroleum Gases	87.0	98.9	-11.9	80.7
Other Petroleum Products[b]	264.7	252.2	12.5	254.5

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels or less than 0.05 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration. Appropriate issues of *Petroleum Supply Monthly*. (See Explanatory Note 3.)

was also consistent with seasonal patterns. Compared with January 1988, demand for motor gasoline this month was 0.8 percent higher.

Mild January weather throughout much of the nation contributed to the uncharacteristic drop in distillate fuel oil demand during January. Distillate fuel oil demand averaged 3.3 million barrels per day, 0.3 million barrels per day lower than in December. The January 1989 distillate fuel oil demand was 6.3 percent below the comparable 1988 level.

Residual fuel oil demand also declined in January, falling 0.2 million barrels per day to 1.6 million barrels per day. Warmer weather than usual in January, combined with increased purchases of heavy fuel oil during December before anticipated price increases, contibuted to the lower demand. Despite the decrease this month, residual fuel oil demand was 1.1 percent higher than during January 1988.

Demand for liquefied petroleum gases (LPGs) increased marginally in January and averaged 2.1 million barrels per day. Continued strong demand for LPGs at petrochemical plants helped to keep demand strong in January. Compared with the same period last year, LPG demand in January 1989 was 0.9 percent lower.

Product Stocks

Total petroleum products stocks increased 15.9 million barrels in January to 724.7 million barrels. This was 15.6 million barrels higher than at the end of January 1988.

Motor gasoline stocks showed the largest increase, rising 16.1 million barrels to 205.8 million barrels. Increases of this magnitude are normal for this time of year, as motor gasoline demand usually falls. Motor gasoline inventories at the end of January were 5.7 million barrels above the level at the end of January 1988. Stocks of motor gasoline blending components also increased in January, climbing 4.2 million barrels to 42.8 million barrels by the end of the month. This was 3.4 million barrels higher than the level a year ago.

The drop in January residual fuel oil demand led to an increase in stocks of 2.4 million barrels. Residual fuel oil inventories

Inventories of products increased 15.9 million barrels in January to 724.7 million barrels. Additions to motor gasoline stocks were most significant, rising 16.1 million barrels.

are normally drawn down in January. Residual fuel oil stocks were 47.0 million barrels at the end of the month, 0.3 million barrels above the level a year ago.

Stocks of LPGs showed the largest decrease in January, falling 11.9 million barrels to 87.0 million barrels. Large drawdowns of LPG stocks are typical in January, usually the peak demand month for these products. Despite the drop, LPG inventories were 6.2 million barrels higher than at the end of January 1988.

Distillate fuel oil stocks declined in January as well, but the decrease was much smaller than usual because the warmer weather reduced demand for heating oil during the month. Stocks of distillate fuel oil ended the month at 120.3 million barrels. This was 3.2 million barrels below the December level and 6.9 million barrels below the level at the end of January 1988.

Crude Oil

Following two consecutive months of inventory declines, crude oil stocks (excluding SPR) rebounded somewhat in January. Crude oil inventories at the end of January were 333.3 million barrels, 2.0 million barrels higher than at the end of December 1988. Higher imports and lower refinery inputs contributed to the January 1989 increase. Stocks of crude oil at the end of January were 12.2 million barrels lower than the level a year ago.

Domestic crude oil production is estimated to have fallen 0.1 million barrels per day in January to 7.9 million barrels per day. Production showed small decreases in January for both Alaska and the lower - 48 States. Alaskan production is estimated to be slighty below 2.0 million barrels per day while production in the lower - 48 States is estimated to be just under 6.0 million barrels per day. Domestic crude oil production in January 1989 was estimated to be 4.0 percent lower than during January 1988.

Gross imports of crude oil (excluding SPR) were 5.5 million barrels per day in January, 0.3 million barrels per day greater than in December 1988. Increased deliveries from Venezuela and Saudi Arabia accounted for the increase. Compared with the same period in 1988, crude oil imports in January 1989 showed a 19.9 percent increase.

Refinery Utilization

Total refinery utilization increased for the third consecutive month in January 1989. The utilization rate increased from 85.1 percent in December to 86.1 percent in January despite a decrease in gross refinery inputs. Gross refinery inputs averaged 13.5 million barrels per day in January, slightly lower than during December. Operable capacity averaged 15.7 million barrels per day, 0.2 million barrels per day lower than during December. A decrease in PAD District V accounted for over half of the total decline in January.

Downstream refinery activity declined in January as some refineries underwent maintenance on cracking units. Inputs of fresh feed to catalytic cracking, catalytic hydrocracking, and coking units averaged 6.8 million barrels per day, 0.3 million barrels per day below the December level. The slowdown in downstream refinery activity is reflected in the decrease in motor gasoline production.

Summary Statistics

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *Petroleum Supply Monthly*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication in May 1989. Revisions for 1987 data are not planned.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 **Average**	**10,975**	**9,208**	**1,738**	**-11**	**146**	**17,308**	**1,008**
1974 **Average**	**10,498**	**8,774**	**1,688**	**62**	**117**	**16,653**	[h] **1,074**
1975 **Average**	**10,045**	**8,375**	**1,633**	[h] **17**	[h] **15**	**16,322**	**1,133**
1976 **Average**	**9,774**	**8,132**	**1,603**	**39**	**-96**	**17,461**	**1,112**
1977 **Average**	**9,913**	**8,245**	**1,618**	**170**	**378**	**18,431**	**1,312**
1978 **Average**	**10,328**	**8,707**	**1,567**	**78**	**-172**	**18,847**	**1,278**
1979 **Average**	**10,179**	**8,552**	**1,584**	**148**	**25**	**18,513**	**1,341**
1980 **Average**	**10,214**	**8,597**	**1,573**	**98**	**42**	**17,056**	[h] **1,392**
1981 **Average**	**10,230**	**8,572**	**1,609**	[h] **290**	[h] **-130**	**16,058**	**1,484**
1982 **Average**	**10,252**	**8,649**	**1,550**	**136**	**-283**	**15,296**	[h] **1,430**
1983 **Average**	**10,299**	**8,688**	**1,559**	[h] **214**	[h] **-234**	**15,231**	**1,454**
1984 **Average**	**10,554**	**8,879**	**1,630**	**199**	**81**	**15,726**	**1,556**
1985 **Average**	**10,636**	**8,971**	**1,609**	**50**	**-153**	**15,726**	**1,519**
1986 **Average**	**10,289**	**8,680**	**1,551**	**78**	**124**	**16,281**	**1,593**
1987 January	10,139	8,480	1,582	166	-376	16,684	1,586
February	10,073	8,389	1,618	22	-831	16,908	1,563
March	10,131	8,464	1,598	125	-340	16,165	1,557
April	10,139	8,498	1,590	-50	-532	16,524	1,539
May	9,977	8,336	1,585	-36	116	16,026	1,542
June	9,906	8,279	1,578	165	42	16,830	1,548
July	9,895	8,251	1,582	-33	372	17,113	1,558
August	9,843	8,210	1,571	345	737	16,346	1,592
September	9,851	8,205	1,582	220	236	16,670	1,606
October	10,037	8,364	1,602	661	-523	16,941	1,610
November	10,112	8,397	1,637	355	478	16,343	1,635
December	10,001	8,318	1,621	-405	-482	17,445	1,607
Average	**10,008**	**8,349**	**1,595**	**128**	**-87**	**16,665**	--
1988 January	E 9,874	E 8,245	1,569	-56	-285	17,224	1,597
February	E 10,016	E 8,376	1,594	130	-895	17,584	1,575
March	E 10,044	E 8,347	1,628	212	-748	17,530	1,559
April	E 9,935	E 8,268	1,609	194	450	16,440	1,578
May	E 9,881	E 8,203	1,624	41	1,049	16,117	1,612
June	E 9,815	E 8,158	1,605	113	-146	17,054	1,611
July	E 9,728	E 8,059	1,609	-270	788	16,555	1,627
August	E 9,756	E 8,063	1,624	-495	304	17,375	1,621
September	E 9,585	E 7,900	1,622	-74	296	16,816	1,627
October	E 9,703	E 7,974	1,665	403	-315	17,481	1,630
November	E 9,711	E 7,985	1,667	4	137	17,426	1,634
December	E 9,680	E 7,975	1,635	-160	-962	18,429	1,600
Average	E **9,810**	E **8,129**	**1,621**	**2**	**-25**	**17,170**	--
1989 January*	RE 9,638	RE 7,913	R 1,653	R 130	R 512	R 17,211	R 1,620
February**	PE 9,682	PE 7,965	E 1,653	E *69*	E *-616*	E *17,829*	E *1,597*
2-Mo. Average	PE **9,659**	PE **7,938**	E **1,653**	E **101**	E **-23**	E **17,505**	--
1988 **2-Mo. Average**	E **9,942**	E **8,308**	**1,581**	**34**	**-580**	**17,398**	--
1987 **2-Mo. Average**	**10,107**	**8,437**	**1,599**	**98**	**-592**	**16,790**	--

Beginning in this issue, the "stock withdrawal" data series are reformulated as the "stock change" data series. This reformulation changes the data series from supply items to disposition items. Numerical values remain the same in both series but their signs are reversed.

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[a] Includes lease condensate.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.

[e] Includes stocks located in the Strategic Petroleum Reserve.

[f] Includes crude oil for storage in the Strategic Petroleum Reserve.

[g] Net Imports equal Imports minus Exports.

[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[g]
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 Average	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 Average	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 Average	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 Average	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 Average	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	**631**	**5,439**
1987 January	6,353	4,385	1,968	703	84	619	5,650
February	5,984	3,866	2,118	977	284	694	5,007
March	5,794	3,779	2,015	720	150	570	5,074
April	5,911	4,132	1,779	870	247	624	5,041
May	6,073	4,340	1,732	666	69	597	5,407
June	6,769	4,807	1,962	669	116	554	6,099
July	7,588	5,295	2,293	680	149	531	6,908
August	7,454	5,510	1,944	664	141	523	6,790
September	7,178	5,110	2,068	795	116	680	6,382
October	7,068	5,142	1,926	646	84	562	6,422
November	7,068	5,013	2,055	737	164	573	6,331
December	6,833	4,640	2,194	1,057	220	838	5,776
Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 January	6,900	4,619	2,281	891	212	679	6,009
February	6,995	4,692	2,303	867	149	718	6,128
March	6,727	4,788	1,938	839	218	622	5,888
April	7,050	5,126	1,924	678	117	562	6,371
May	7,218	5,234	1,983	817	141	676	6,401
June	6,885	5,055	1,830	941	141	800	5,944
July	6,994	5,006	1,988	831	191	640	6,164
August	7,174	5,039	2,135	817	155	661	6,357
September	7,220	5,183	2,037	675	122	554	6,545
October	7,666	5,542	2,124	737	171	566	6,929
November	7,544	5,017	2,527	721	151	569	6,823
December	7,680	5,225	2,455	1,011	132	879	6,669
Average	**7,172**	**5,045**	**2,127**	**819**	**159**	**661**	**6,353**
1989 January*	R 8,040	R 5,521	R 2,519	R 760	R 136	R 624	R 7,280
February**	E *7,900*	E *5,234*	E *2,665*	E 845	E 143	E 702	E 7,055
2-Mo. Average	E **7,973**	E **5,385**	E **2,588**	E **800**	E **139**	E **661**	E **7,173**
1988 2-Mo. Average	**6,946**	**4,655**	**2,291**	**879**	**182**	**698**	**6,066**
1987 2-Mo. Average	**6,178**	**4,139**	**2,039**	**833**	**179**	**654**	**5,345**

Footnotes continued.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.
* See Explanatory Note 3.
** Italics denote estimates based upon preliminary data. See Explanatory Note 2.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S1. Petroleum Overview

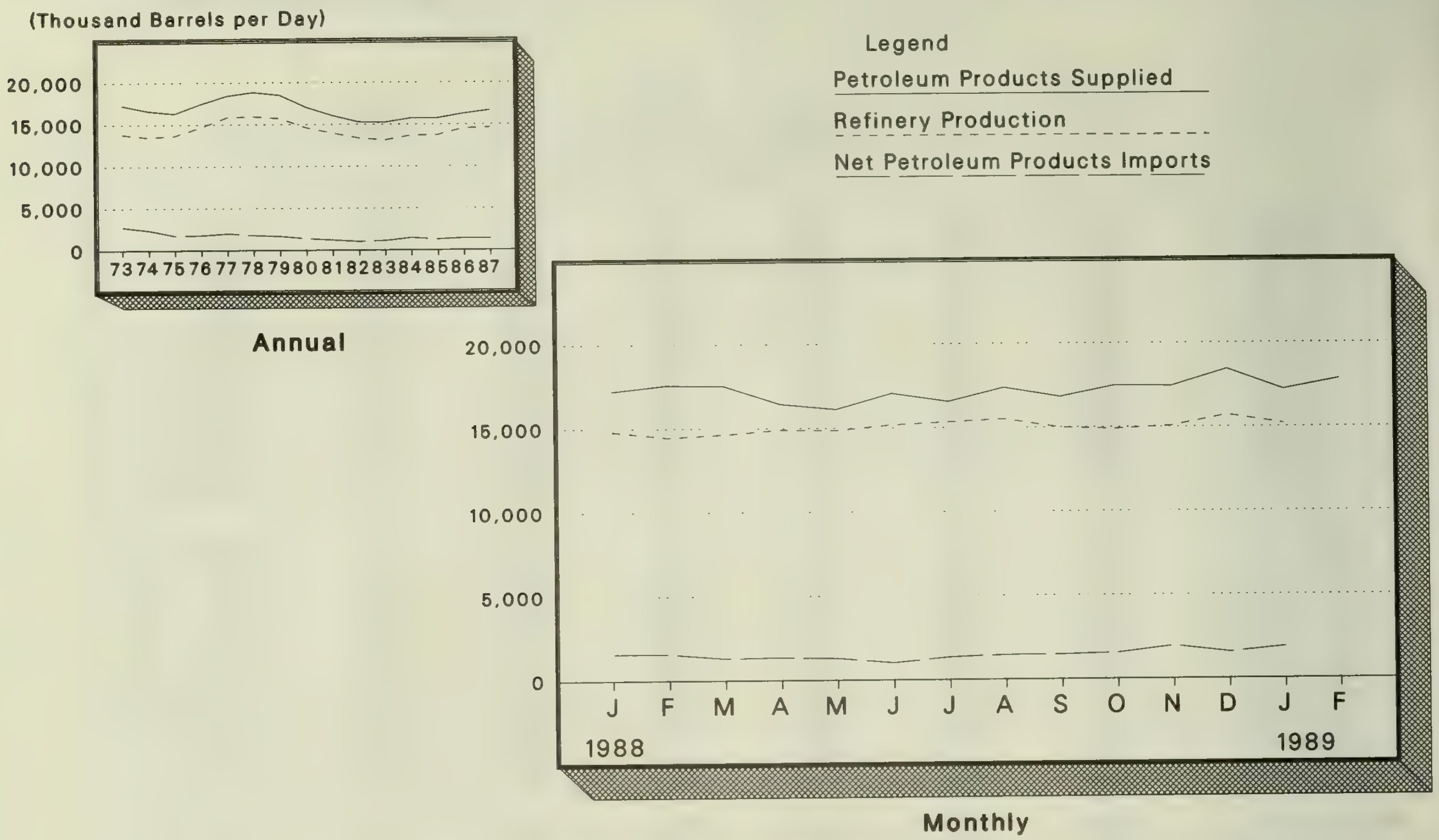

Figure S2. Petroleum Products Supplied

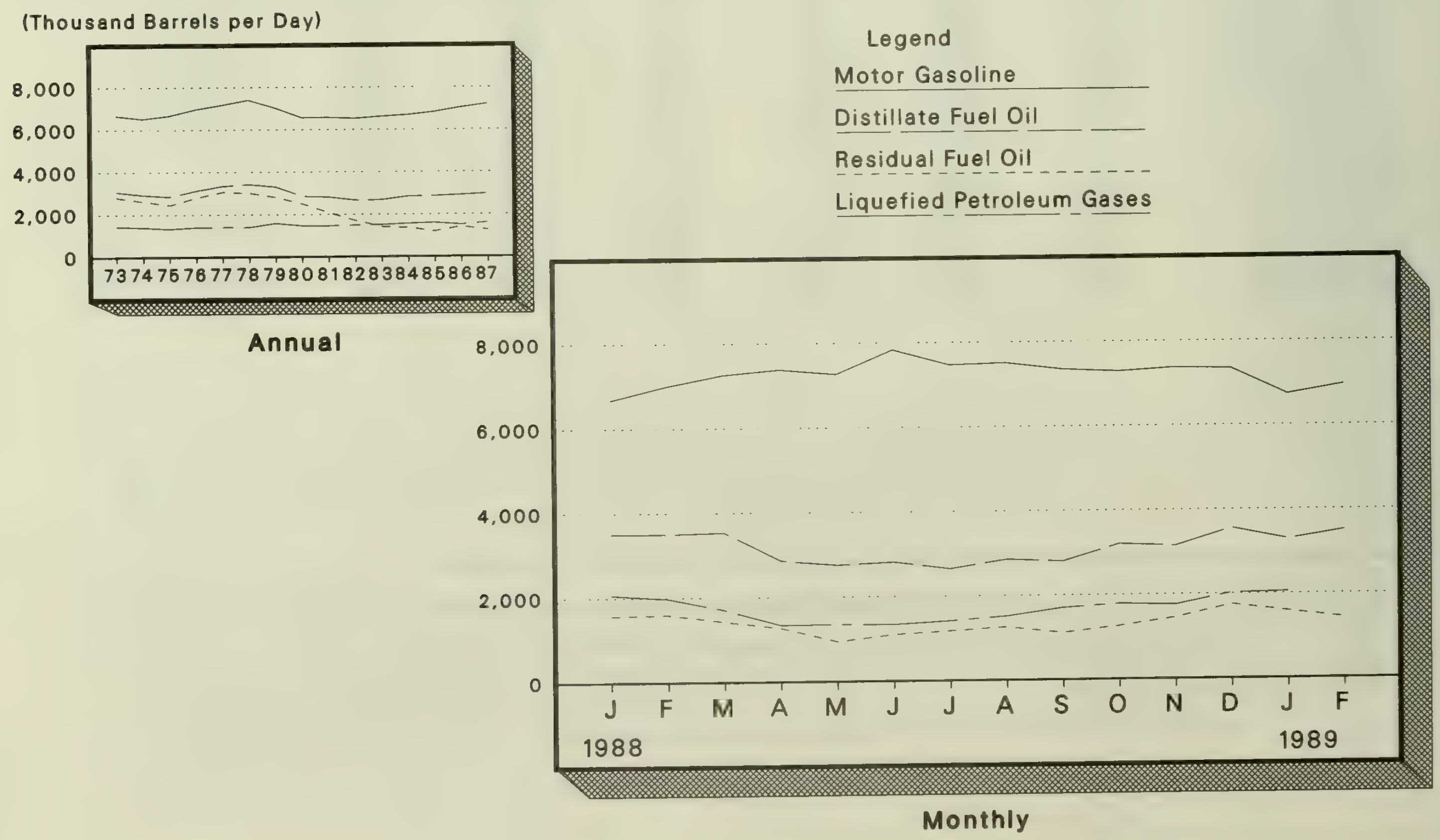

Figure S3. Crude Oil Supply and Disposition

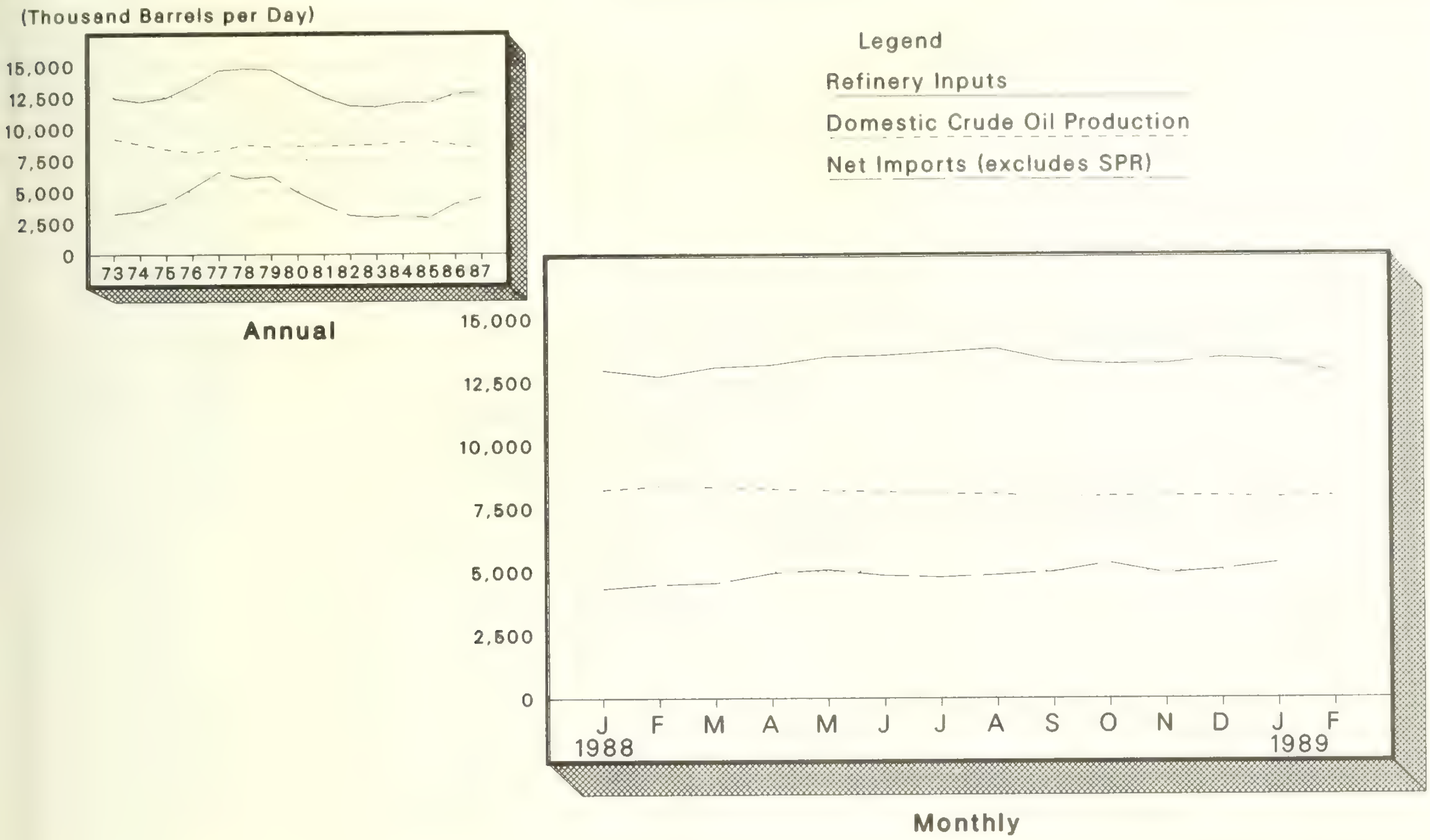

Figure S4. Crude Oil Ending Stocks

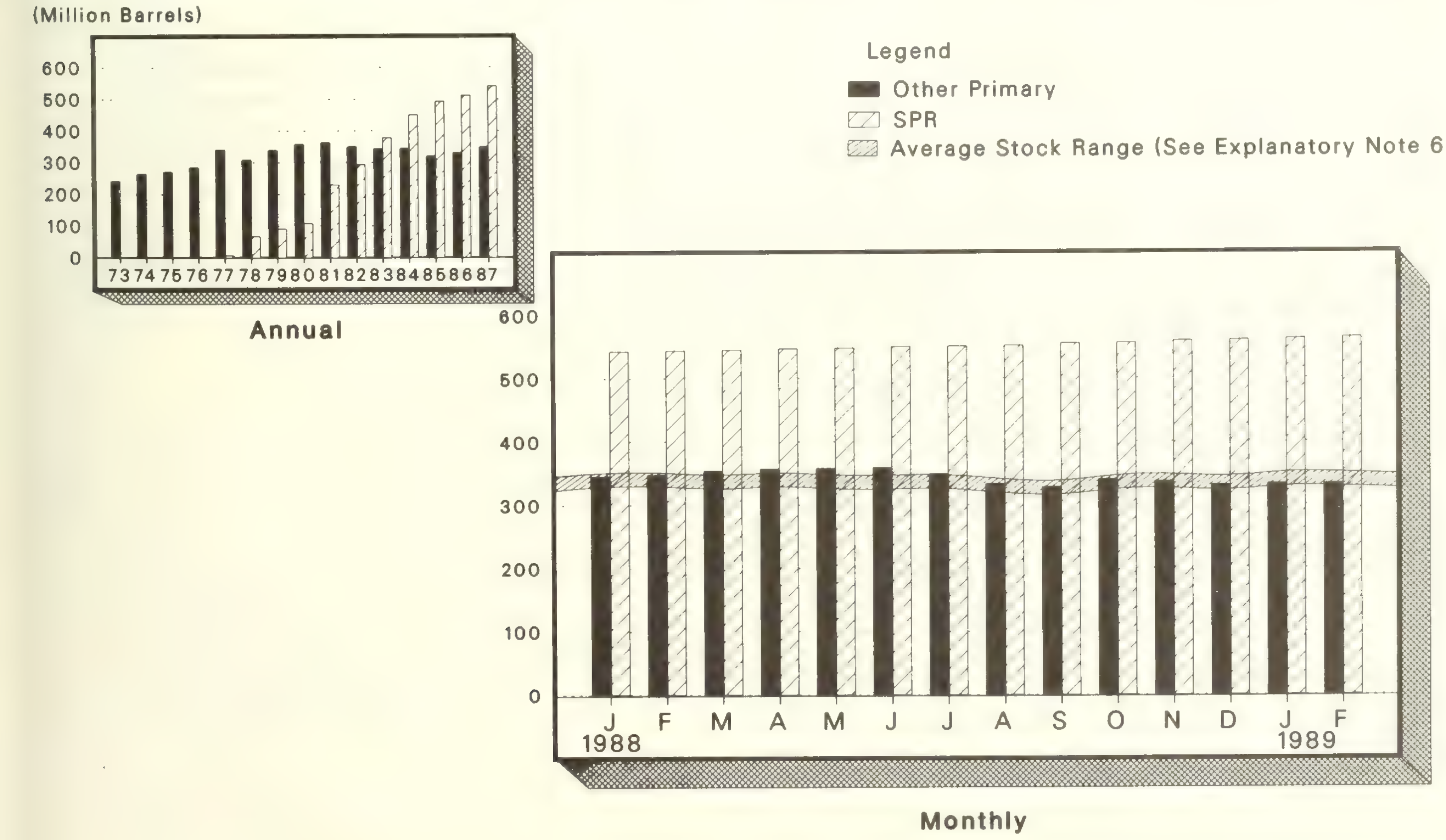

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports			Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Total Domestic	Alaskan	Total	SPR[d]	Other			
		Thousand Barrels per Day							
1973	Average	9,208	198	3,244	--	3,244	3	-19	13
1974	Average	8,774	193	3,477	--	3,477	-25	-15	13
1975	Average	8,375	191	4,105	--	4,105	17	-17	13
1976	Average	8,132	173	5,287	--	5,287	77	-18	15
1977	Average	8,245	464	6,615	21	6,594	-6	-14	16
1978	Average	8,707	1,229	6,356	162	6,195	-57	-14	16
1979	Average	8,552	1,401	6,519	67	6,452	-11	-13	16
1980	Average	8,597	1,617	5,263	44	5,219	34	-13	15
1981	Average	8,572	1,609	4,396	256	4,141	83	-58	5
1982	Average	8,649	1,696	3,488	165	3,323	71	-59	3
1983	Average	8,688	1,714	3,329	234	3,096	114	--	2
1984	Average	8,879	1,722	3,426	197	3,229	185	--	2
1985	Average	8,971	1,825	3,201	118	3,083	145	--	1
1986	Average	8,680	1,867	4,178	48	4,130	139	--	(s)
1987	January	8,480	2,019	4,385	92	4,293	-5	--	1
	February	8,389	1,853	3,866	44	3,822	382	--	(s)
	March	8,464	1,968	3,779	95	3,684	151	--	1
	April	8,498	1,990	4,132	57	4,076	120	--	(s)
	May	8,336	1,979	4,340	92	4,248	51	--	(s)
	June	8,279	1,930	4,807	64	4,743	434	--	(s)
	July	8,251	1,910	5,295	76	5,218	32	--	(s)
	August	8,210	1,908	5,510	63	5,447	177	--	(s)
	September	8,205	1,874	5,110	64	5,047	217	--	(s)
	October	8,364	1,986	5,142	57	5,085	-3	--	(s)
	November	8,397	2,068	5,013	97	4,916	115	--	(s)
	December	8,318	2,043	4,640	68	4,572	101	--	(s)
	Average	8,349	1,962	4,674	73	4,601	145	--	(s)
1988	January	E 8,245	E 1,999	4,619	67	4,552	303	--	(s)
	February	E 8,376	E 2,070	4,692	49	4,643	-21	--	(s)
	March	E 8,347	E 2,086	4,788	23	4,766	419	--	(s)
	April	E 8,268	E 2,029	5,126	78	5,049	126	--	(s)
	May	E 8,203	E 2,016	5,234	22	5,213	251	--	(s)
	June	E 8,158	E 1,984	5,055	70	4,985	601	--	(s)
	July	E 8,059	E 1,960	5,006	42	4,965	548	--	(s)
	August	E 8,063	E 2,009	5,039	26	5,013	385	--	(s)
	September	E 7,900	E 2,020	5,183	84	5,099	313	--	(s)
	October	E 7,974	E 2,010	5,542	43	5,499	288	--	(s)
	November	E 7,985	E 2,027	5,017	89	4,928	393	--	(s)
	December	E 7,975	E 1,996	5,225	27	5,198	251	--	(s)
	Average	E 8,129	E 2,017	5,045	51	4,994	323	--	(s)
1989	January*	RE 7,913	RE 1,958	R 5,521	R 65	R 5,456	R 209	--	(s)
	February**	PE 7,965	PE 2,016	E *5,234*	E *83*	E *5,152*	E *-93*	--	E (s)
	2-Mo. Average	PE 7,938	PE 1,985	E 5,385	E 73	E 5,312	E 66	--	E (s)
1988	2-Mo. Average	E 8,308	E 2,033	4,655	58	4,596	146	--	(s)
1987	2-Mo. Average	8,437	1,940	4,139	70	4,069	179	--	(s)

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[a] Includes lease condensate.
[b] Stocks are totals as of end of period.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Strategic Petroleum Reserve.
[e] A balancing item.
[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels.

See Explanatory Notes 10, 11, and 12.
Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	--	-11	12,431	2	--	242	--	242
1974	**Average**	--	62	12,133	3	--	265	--	265
1975	**Average**	--	17	12,442	6	--	271	--	271
1976	**Average**	--	39	13,416	8	--	285	--	285
1977	**Average**	20	150	14,602	50	--	348	7	340
1978	**Average**	163	-84	14,739	158	--	376	67	309
1979	**Average**	67	81	14,648	235	--	430	91	339
1980	**Average**	45	52	13,481	287	--	[g] 466	108	[g] 358
1981	**Average**	336	[g] -46	12,470	228	--	594	230	363
1982	**Average**	174	-38	11,774	236	--	[g] 644	294	[g] 350
1983	**Average**	234	[g] -20	11,685	164	66	723	379	344
1984	**Average**	195	4	12,044	181	64	796	451	345
1985	**Average**	117	-67	12,002	204	60	814	493	321
1986	**Average**	50	28	12,716	154	49	843	512	331
1987	January	108	58	12,570	84	41	848	515	333
	February	64	-42	12,290	284	41	849	517	332
	March	106	19	12,081	150	39	852	520	332
	April	67	-116	12,512	247	41	851	522	329
	May	101	-137	12,653	69	42	850	525	325
	June	69	97	13,202	116	36	855	527	328
	July	91	-124	13,430	149	32	854	530	324
	August	63	281	13,380	141	31	864	532	332
	September	64	157	13,168	116	28	871	534	337
	October	57	604	12,733	84	25	892	536	356
	November	97	258	12,981	164	25	902	539	364
	December	68	-472	13,212	220	31	890	541	349
	Average	80	49	12,854	151	34	--	--	--
1988	January	67	-123	12,975	212	36	888	543	345
	February	49	81	12,715	149	52	892	544	348
	March	26	187	13,072	218	52	899	545	354
	April	77	117	13,167	117	42	904	547	357
	May	22	19	13,472	141	34	906	548	358
	June	70	43	13,528	141	32	909	550	359
	July	42	-312	13,663	191	29	901	551	349
	August	26	-521	13,797	155	30	885	552	333
	September	84	-157	13,309	122	37	883	555	328
	October	43	360	13,188	171	42	896	556	340
	November	89	-85	13,196	151	44	896	559	337
	December	27	-187	13,433	132	44	891	560	331
	Average	52	-49	13,296	159	39	--	--	--
1989	January*	R 65	R 66	R 13,330	R 136	R 47	895	562	333
	February**	E *74*	E *-5*	E *12,851*	E 143	E 44	E *897*	E *564*	E *333*
	2-Mo. Average	E 69	E 32	E 13,103	E 139	E 46	--	--	--
1988	**2-Mo. Average**	58	-24	12,849	182	44	--	--	--
1987	**2-Mo. Average**	87	11	12,437	179	41	--	--	--

Beginning in this issue, the "stock withdrawal" data series are reformulated as the "stock change" data series. This reformulation changes the data series from supply items to disposition items. Numerical values remain the same in both series but their signs are reversed.

Footnotes continued.

R = Revised data. **(s)** = Less than 500 barrels per day. **E** = Estimated. **PE** = Preliminary estimate. **RE** = Revised estimate.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	**Average**	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	**Average**	190	4	461	74	300	469	713	979	88	3,280	752
1975	**Average**	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	**Average**	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	**Average**	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	**Average**	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	**Average**	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	**Average**	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	**Average**	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	**Average**	170	26	552	92	248	35	514	412	97	2,146	854
1983	**Average**	240	0	337	30	338	48	302	422	144	1,862	632
1984	**Average**	323	1	325	117	343	10	216	548	166	2,049	819
1985	**Average**	187	4	168	45	314	27	293	605	187	1,830	472
1986	**Average**	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	**295**	**0**	**751**	**61**	**285**	**98**	**535**	**804**	**231**	**3,060**	**1,274**
1988	January	312	0	849	61	179	[f] 1	406	752	540	3,100	1,632
	February	358	0	1,265	79	148	0	501	830	214	3,394	1,883
	March	259	0	934	6	123	0	541	790	352	3,006	1,506
	April	342	0	931	48	166	0	651	812	385	3,335	1,613
	May	320	0	1,034	34	298	0	488	835	354	3,363	1,710
	June	262	0	923	11	158	0	703	839	495	3,391	1,603
	July	193	0	1,076	43	198	0	614	706	609	3,439	1,897
	August	253	0	1,161	0	153	0	557	809	669	3,603	2,024
	September	274	0	1,048	22	231	0	528	803	697	3,603	2,009
	October	326	0	1,244	16	216	0	686	758	539	3,785	2,056
	November	322	0	986	0	227	0	471	752	694	3,452	1,914
	December	316	0	1,289	19	181	0	667	664	524	3,661	2,085
	Average	**294**	**0**	**1,062**	**28**	**190**	**(s)**	**568**	**779**	**507**	**3,428**	**1,828**
1989	January	315	0	1,450	59	211	0	746	916	429	4,126	2,200

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Baha-mas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	**Average**	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974	**Average**	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975	**Average**	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976	**Average**	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977	**Average**	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978	**Average**	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979	**Average**	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980	**Average**	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981	**Average**	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982	**Average**	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983	**Average**	**125**	**547**	**826**	**189**	**96**	**382**	**40**	**282**	**701**	**3,189**	**5,051**
1984	**Average**	**88**	**630**	**748**	**188**	**94**	**402**	**42**	**294**	**902**	**3,388**	**5,437**
1985	**Average**	**40**	**770**	**816**	**40**	**113**	**310**	**28**	**247**	**873**	**3,237**	**5,067**
1986	**Average**	**37**	**807**	**699**	**25**	**125**	**350**	**21**	**244**	**1,080**	**3,387**	**6,224**
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	**37**	**848**	**655**	**29**	**106**	**352**	**21**	**272**	**1,296**	**3,617**	**6,678**
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	April	12	975	674	31	82	581	29	193	1,137	3,714	7,050
	May	17	990	718	38	102	383	20	243	1,345	3,855	7,218
	June	25	1,022	765	19	112	232	13	212	1,094	3,494	6,885
	July	15	962	723	35	96	208	22	215	1,280	3,556	6,994
	August	12	1,003	692	20	97	104	7	172	1,465	3,571	7,174
	September	25	920	842	13	95	148	29	236	1,307	3,617	7,220
	October	11	939	743	17	98	447	21	234	1,370	3,881	7,666
	November	27	985	811	59	73	245	28	286	1,578	4,092	7,544
	December	40	978	701	47	125	292	28	372	1,437	4,019	7,680
	Average	**28**	**976**	**740**	**31**	**97**	**311**	**22**	**241**	**1,299**	**3,744**	**7,172**
1989	January	55	995	807	59	86	207	30	415	1,261	3,914	8,040

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

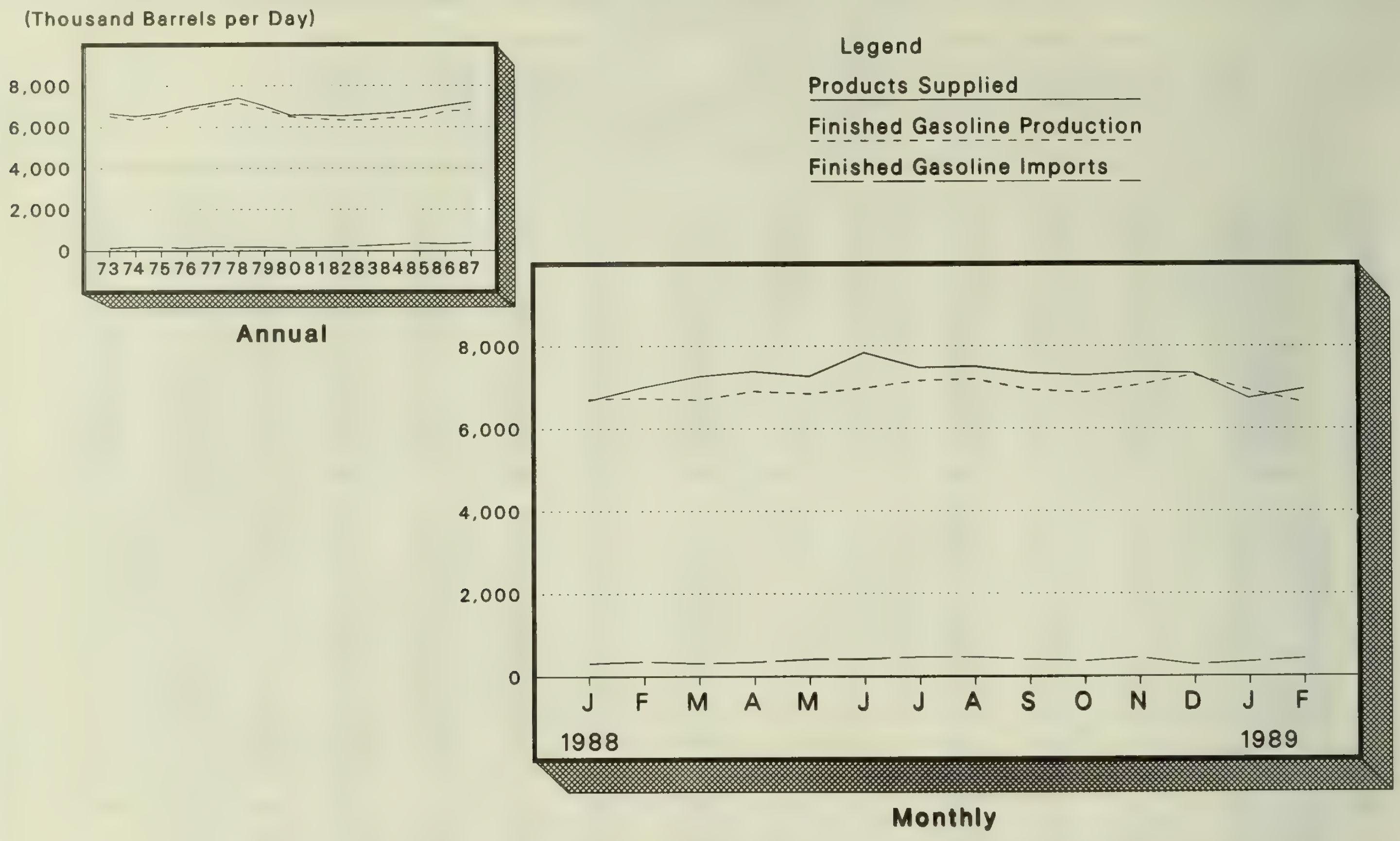
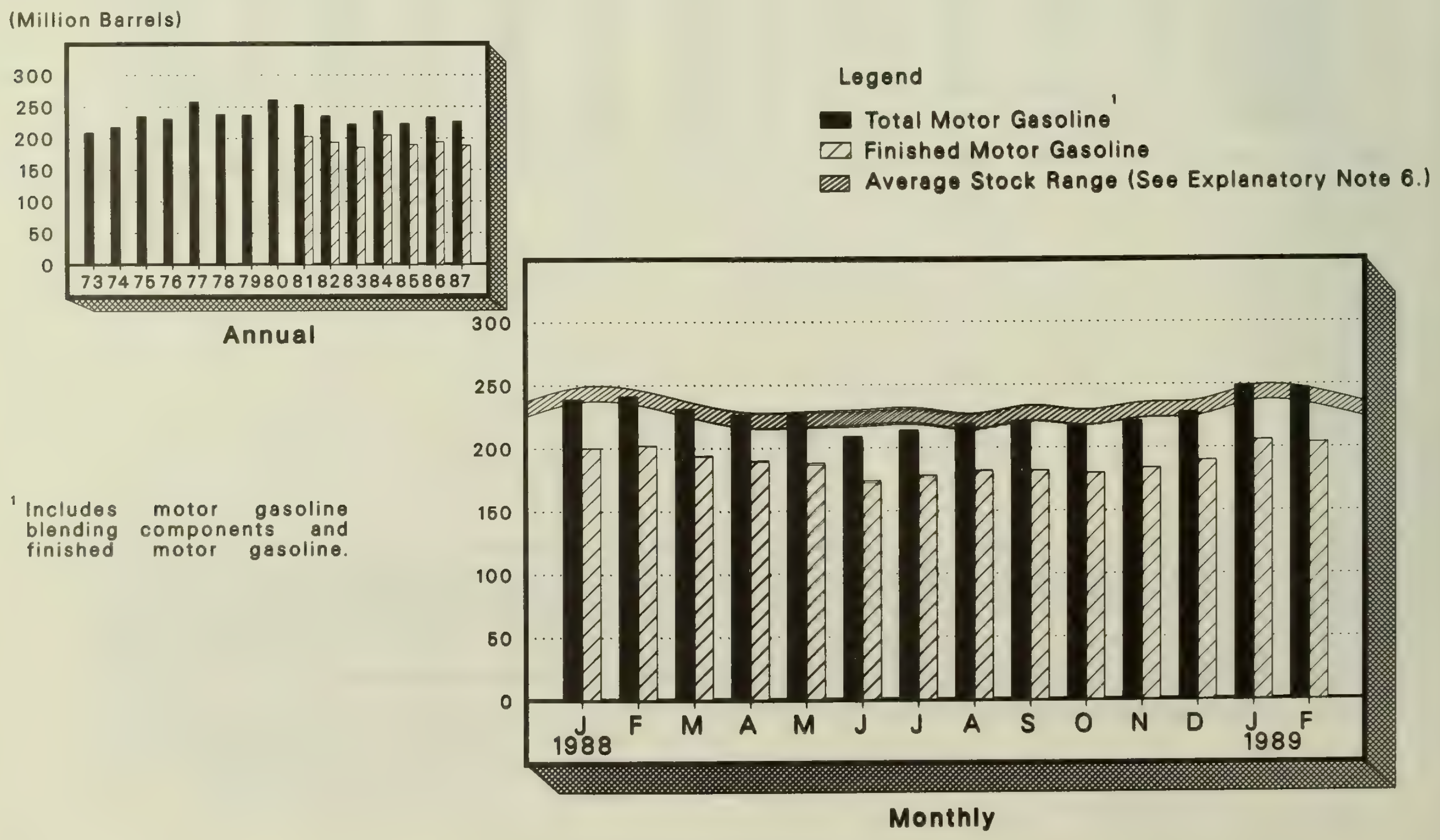


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	**6,535**	**134**	**-9**	**4**	**6,674**	--	--	**209**	--
1974	**Average**	**6,360**	**204**	**24**	**2**	**6,537**	--	--	[f] **218**	--
1975	**Average**	**6,520**	**184**	[f] **28**	**2**	**6,675**	--	--	**235**	--
1976	**Average**	**6,841**	**131**	**-10**	**3**	**6,978**	--	--	**231**	--
1977	**Average**	**7,033**	**217**	**72**	**2**	**7,177**	**1,976**	**27.5**	**258**	--
1978	**Average**	**7,169**	**190**	**-54**	**1**	**7,412**	**2,521**	**34.0**	**238**	--
1979	**Average**	**6,852**	**181**	**-2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	--
1980	**Average**	**6,506**	**140**	**66**	**1**	**6,579**	**3,067**	**46.6**	[f] **261**	--
1981	**Average[g]**	**6,405**	**157**	[f] **-28**	**2**	**6,588**	**3,264**	**49.5**	**253**	--
1982	**Average**	**6,338**	**197**	**-25**	**20**	**6,539**	**3,409**	**52.1**	[f] **235**	--
1983	**Average**	**6,340**	**247**	[f] **-45**	**10**	**6,622**	**3,647**	**55.1**	**222**	186
1984	**Average**	**6,453**	**299**	**54**	**6**	**6,693**	**3,987**	**59.6**	**243**	205
1985	**Average**	**6,419**	**381**	**-41**	**10**	**6,831**	**4,406**	**64.5**	**223**	190
1986	**Average**	**6,752**	**326**	**11**	**33**	**7,034**	**4,854**	**69.0**	**233**	194
1987	January	6,714	393	528	44	6,535	4,822	73.8	251	211
	February	6,365	309	-144	22	6,796	5,068	74.6	250	207
	March	6,569	364	-51	20	6,964	5,193	74.6	248	205
	April	6,850	374	-133	42	7,314	5,405	73.9	242	201
	May	6,991	354	-164	48	7,460	5,569	74.7	235	196
	June	7,089	385	-111	46	7,539	5,678	75.3	230	193
	July	7,043	452	-119	33	7,581	5,740	75.7	226	189
	August	6,933	396	-29	19	7,338	5,656	77.1	226	188
	September	6,921	421	107	30	7,205	5,536	76.8	230	191
	October	6,668	356	-302	21	7,305	5,636	77.1	218	182
	November	6,907	484	208	32	7,151	5,589	78.2	225	188
	December	7,015	320	24	59	7,251	5,715	78.8	226	189
	Average	**6,841**	**384**	**-15**	**35**	**7,206**	**5,470**	**75.9**	--	--
1988	January	6,723	324	361	8	6,679	5,392	80.7	239	200
	February	6,736	365	78	18	7,004	5,571	79.5	241	202
	March	6,695	318	-271	18	7,265	5,845	80.4	231	194
	April	6,906	349	-148	18	7,384	5,946	80.5	226	190
	May	6,847	415	-34	28	7,269	5,813	80.0	226	188
	June	6,983	424	-490	59	7,838	6,356	81.1	209	174
	July	7,159	461	135	12	7,473	6,126	82.0	214	178
	August	7,204	465	142	15	7,511	6,191	82.4	219	182
	September	6,948	403	-14	16	7,349	6,066	82.5	221	182
	October	6,875	363	-63	13	7,287	5,992	82.2	217	180
	November	7,057	451	124	15	7,369	6,149	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,954**	**384**	**2**	**22**	**7,314**	**5,973**	**81.7**	--	--
1989	January*	R 6,935	R 349	R 519	R 33	R 6,732	R 5,753	R 85.4	R 249	R 206
	February**	E *6,631*	E *424*	E *73*	E 28	E *6,955*	E *6,025*	E *86.6*	E *247*	E *204*
	2-Mo. Average	E **6,791**	E **385**	E **307**	E **31**	E **6,838**	E **5,882**	E **86.0**	--	--
1988	**2-Mo. Average**	**6,729**	**344**	**224**	**13**	**6,836**	**5,479**	**80.1**	--	--
1987	**2-Mo. Average**	**6,548**	**353**	**209**	**34**	**6,659**	**4,939**	**74.2**	--	--

Beginning in this issue, the "stock withdrawal" data series is reformulated as the "stock change" data series. This reformulation changes the data series from a supply item to a disposition item. Numerical values remain the same in both series but their signs are reversed.

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[a] Stocks are totals as of end of period.

[b] Beginning in 1981, excludes blending components.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Includes gasohol.

[e] Includes motor gasoline blending components.

[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.

R = Revised data. **(s)** = Less than 500 barrels per day. **E** = Estimated.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

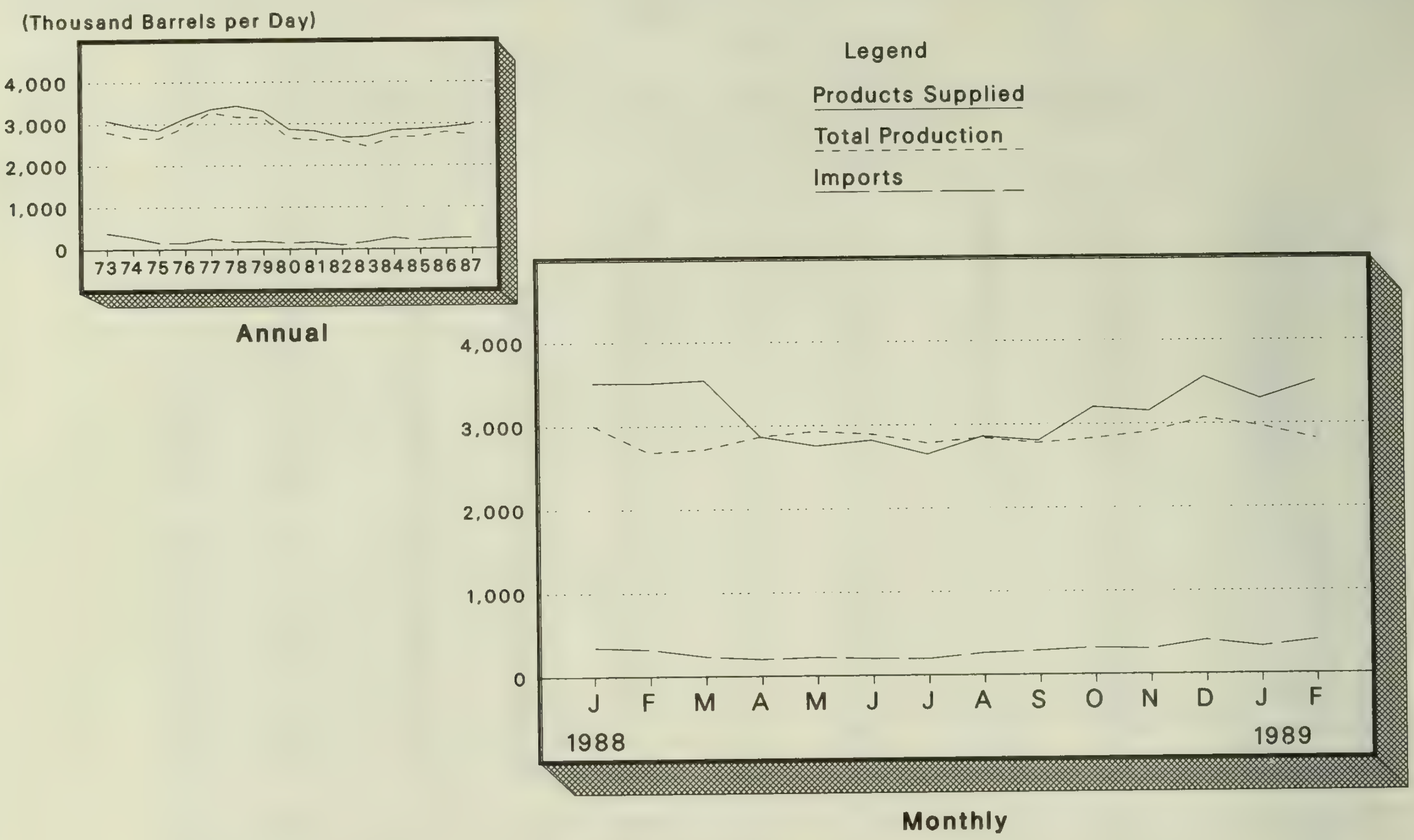

Figure S8. Distillate Fuel Oil Ending Stocks

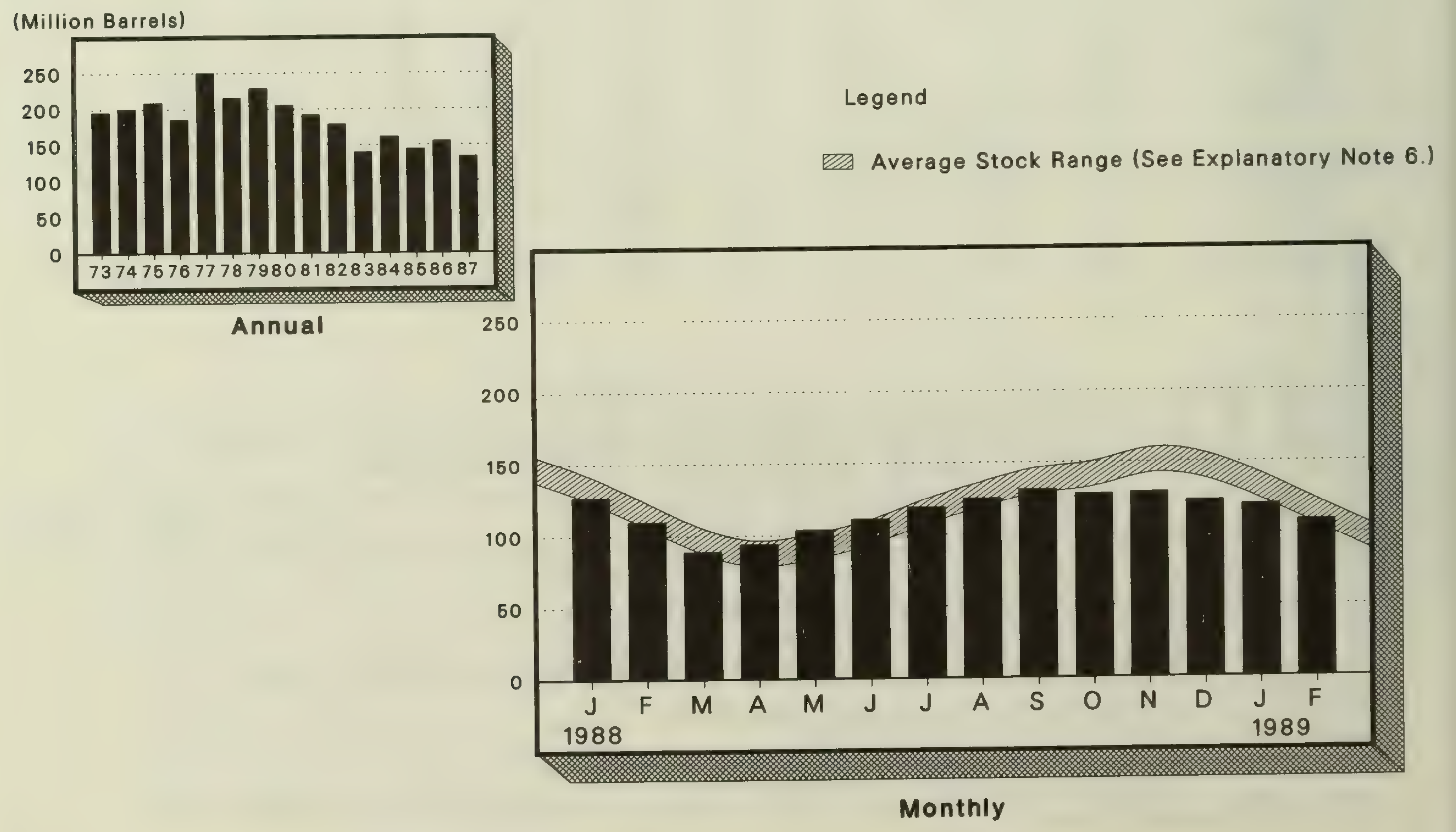

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**2,822**	**392**	**2**	**115**	**9**	**3,092**	196
1974	**Average**	**2,669**	**289**	**2**	**9**	**2**	**2,948**	d 200
1975	**Average**	**2,654**	**155**	**2**	**d -40**	**1**	**2,851**	209
1976	**Average**	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	186
1977	**Average**	**3,278**	**250**	**1**	**176**	**1**	**3,352**	250
1978	**Average**	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	216
1979	**Average**	**3,153**	**193**	**1**	**34**	**3**	**3,311**	229
1980	**Average**	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	d 205
1981	**Average**[e]	**2,613**	**173**	**10**	**d -38**	**5**	**2,829**	192
1982	**Average**	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	d 179
1983	**Average**	**2,456**	**174**	**--**	**d -124**	**64**	**2,690**	140
1984	**Average**	**2,681**	**272**	**--**	**57**	**51**	**2,845**	161
1985	**Average**	**2,687**	**200**	**--**	**-48**	**67**	**2,868**	144
1986	**Average**	**2,798**	**247**	**--**	**31**	**100**	**2,914**	155
1987	January	2,759	222	--	-444	115	3,310	141
	February	2,556	253	--	-629	93	3,345	124
	March	2,421	297	--	-464	67	3,116	109
	April	2,553	192	--	-300	53	2,991	100
	May	2,563	203	--	31	51	2,684	101
	June	2,689	265	--	104	61	2,790	104
	July	2,700	381	--	329	38	2,713	115
	August	2,706	222	--	327	47	2,553	125
	September	2,748	222	--	68	64	2,838	127
	October	2,780	237	--	-187	53	3,151	121
	November	3,035	187	--	234	56	2,932	128
	December	3,242	378	--	209	92	3,318	134
	Average	**2,731**	**255**	**--**	**-56**	**66**	**2,976**	--
1988	January	3,008	355	--	-236	82	3,517	127
	February	2,683	330	--	-604	107	3,511	110
	March	2,720	243	--	-656	74	3,544	89
	April	2,869	208	--	166	42	2,870	94
	May	2,931	228	--	328	74	2,757	104
	June	2,893	209	--	207	76	2,820	111
	July	2,783	205	--	283	58	2,647	119
	August	2,844	270	--	186	70	2,860	125
	September	2,779	292	--	193	72	2,806	131
	October	2,830	324	--	-98	48	3,204	128
	November	2,905	308	--	26	34	3,153	129
	December	3,068	409	--	-170	87	3,560	123
	Average	**2,860**	**282**	**--**	**-30**	**69**	**3,104**	--
1989	January*	R 2,973	R 331	--	R -103	R 110	R 3,296	R 120
	February**	E *2,819*	E *407*	--	E *-339*	E *57*	E *3,509*	E *109*
	2-Mo. Average	E **2,900**	E **367**	**--**	E **-215**	E **85**	E **3,397**	--
1988	**2-Mo. Average**	**2,851**	**343**	**--**	**-414**	**94**	**3,514**	--
1987	**2-Mo. Average**	**2,663**	**237**	**--**	**-532**	**104**	**3,327**	--

Beginning in this issue, the "stock withdrawal" data series is reformulated as the "stock change" data series. This reformulation changes the data series from a supply item to a disposition item. Numerical values remain the same in both series but their signs are reversed.

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 6.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.

R = Revised data. **(s)** = Less than 500 barrels per day. **E** = Estimated.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

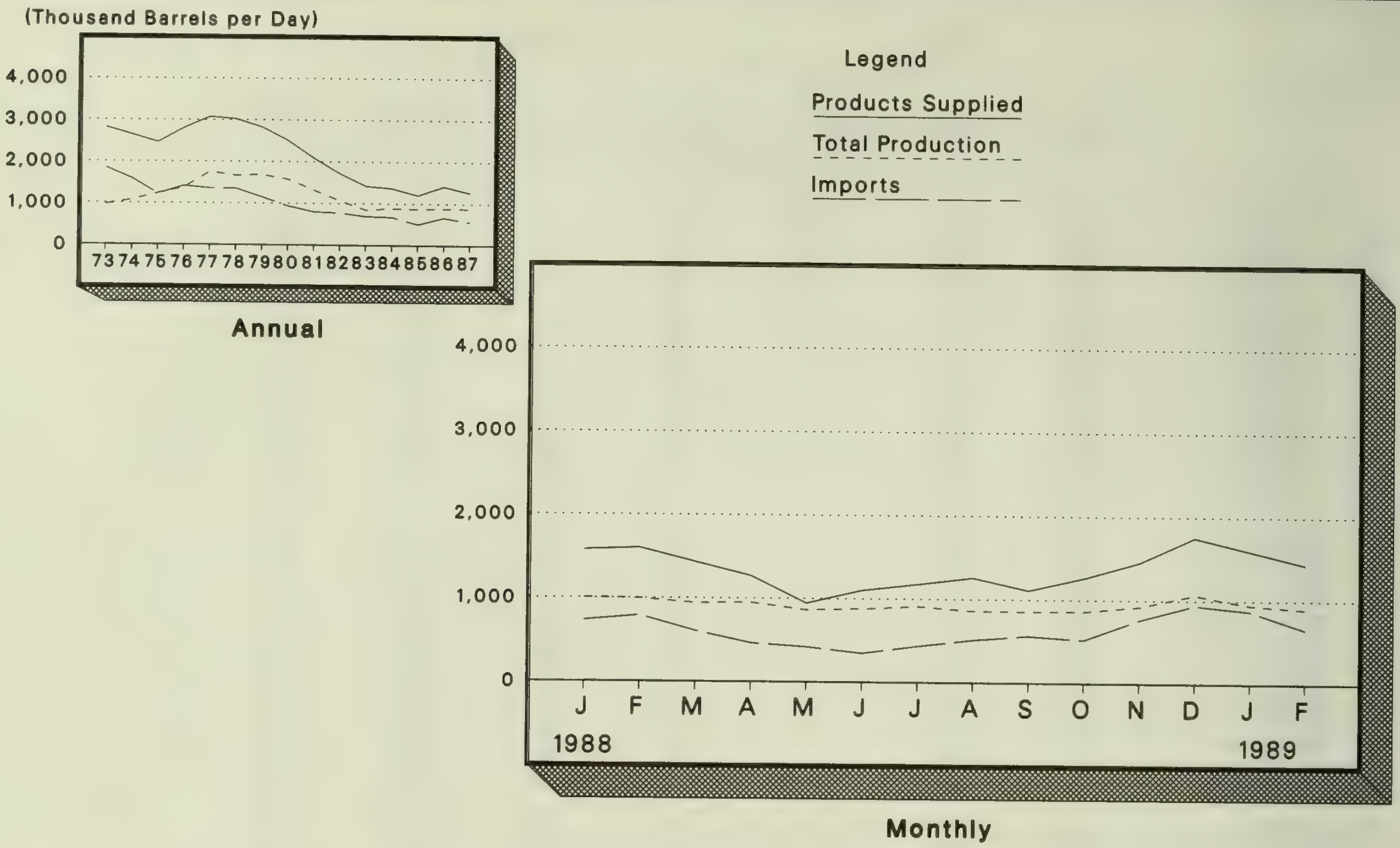

Figure S10. Residual Fuel Oil Ending Stocks

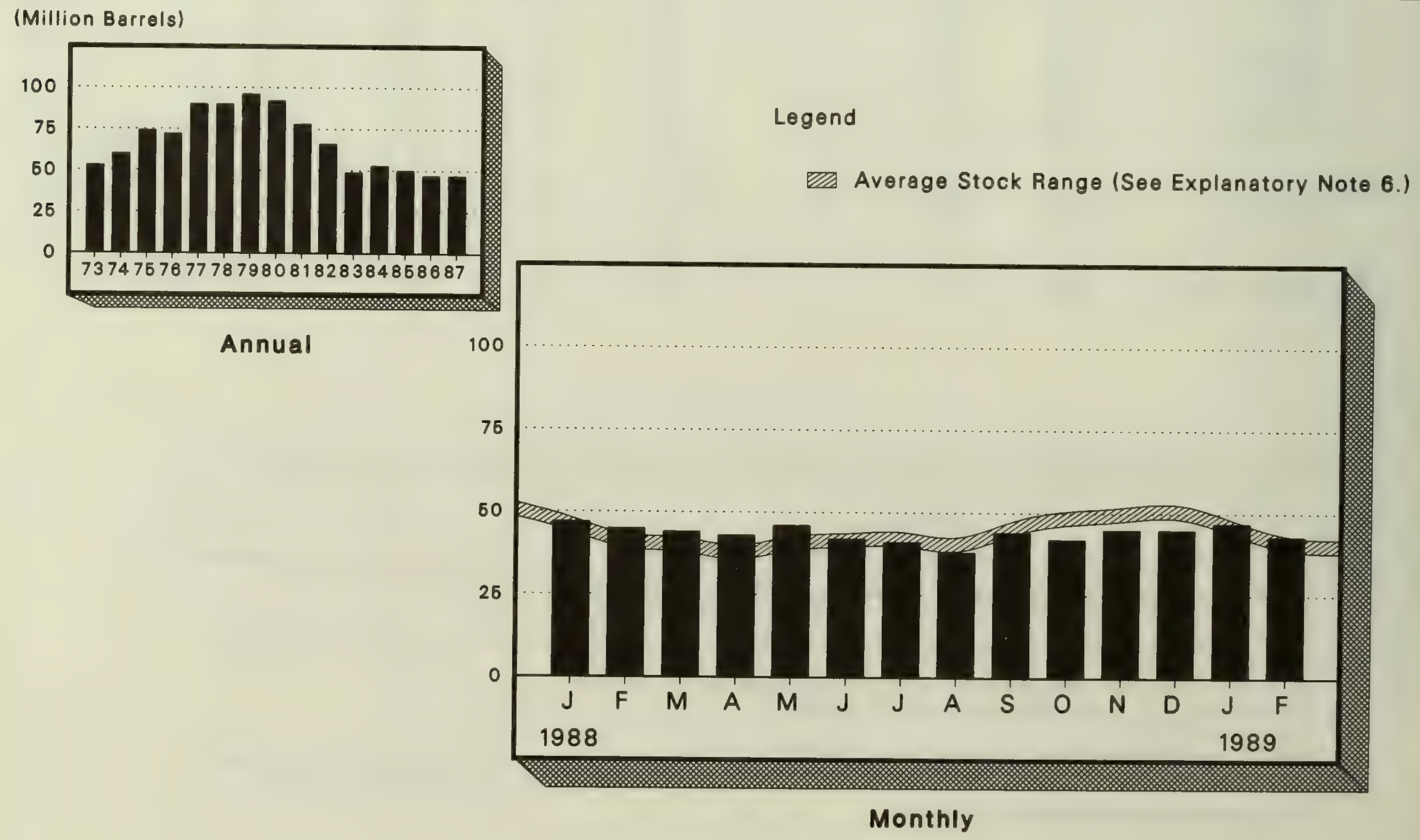

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**971**	**1,853**	**17**	**-5**	**23**	**2,822**	**53**
1974	**Average**	**1,070**	**1,587**	**13**	**17**	**14**	**2,639**	d **60**
1975	**Average**	**1,235**	**1,223**	**15**	d **-2**	**15**	**2,462**	**74**
1976	**Average**	**1,377**	**1,413**	**17**	**-5**	**12**	**2,801**	**72**
1977	**Average**	**1,754**	**1,359**	**13**	**48**	**6**	**3,071**	**90**
1978	**Average**	**1,667**	**1,355**	**13**	**1**	**13**	**3,023**	**90**
1979	**Average**	**1,687**	**1,151**	**12**	**15**	**9**	**2,826**	**96**
1980	**Average**	**1,580**	**939**	**12**	**-10**	**33**	**2,508**	d **92**
1981	**Average**[e]	**1,321**	**800**	**48**	d **-37**	**118**	**2,088**	**78**
1982	**Average**	**1,070**	**776**	**48**	**-32**	**209**	**1,716**	d **66**
1983	**Average**	**852**	**699**	**--**	d **-55**	**185**	**1,421**	**49**
1984	**Average**	**891**	**681**	**--**	**12**	**190**	**1,369**	**53**
1985	**Average**	**882**	**510**	**--**	**-7**	**197**	**1,202**	**50**
1986	**Average**	**889**	**669**	**--**	**-8**	**147**	**1,418**	**47**
1987	January	920	701	--	-81	198	1,504	45
	February	825	668	--	-243	221	1,515	38
	March	863	559	--	38	150	1,234	39
	April	831	476	--	-114	239	1,182	36
	May	813	505	--	145	144	1,029	40
	June	864	481	--	33	105	1,207	41
	July	901	721	--	108	175	1,339	45
	August	882	512	--	32	185	1,176	46
	September	904	526	--	-42	177	1,296	44
	October	887	414	--	39	194	1,069	46
	November	928	568	--	145	146	1,205	50
	December	1,001	650	--	-83	300	1,434	47
	Average	**885**	**565**	**--**	**(s)**	**186**	**1,264**	--
1988	January	1,009	737	--	-23	190	1,578	47
	February	997	792	--	-40	229	1,601	45
	March	944	610	--	-45	165	1,434	44
	April	951	465	--	-27	170	1,272	43
	May	866	423	--	81	263	945	46
	June	881	349	--	-121	249	1,102	42
	July	913	436	--	-34	206	1,177	41
	August	863	515	--	-104	225	1,258	38
	September	859	566	--	213	100	1,112	44
	October	863	522	--	-59	181	1,263	42
	November	923	765	--	89	146	1,453	45
	December	1,067	942	--	-17	271	1,756	45
	Average	**928**	**593**	**--**	**-8**	**200**	**1,329**	--
1989	January*	R 948	R 877	--	R 78	R 151	R 1,596	R 47
	February**	E *900*	E *658*	--	E *-76*	E 200	E *1,435*	E *43*
	2-Mo. Average	E **925**	E **773**	**--**	E **5**	E **174**	E **1,519**	--
1988	**2-Mo. Average**	**1,004**	**764**	**--**	**-31**	**209**	**1,589**	--
1987	**2-Mo. Average**	**875**	**685**	**--**	**-158**	**209**	**1,509**	--

Beginning in this issue, the "stock withdrawal" data series is reformulated as the "stock change" data series. This reformulation changes the data series from a supply item to a disposition item. Numerical values remain the same in both series but their signs are reversed.

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 6.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.

R = Revised data. **(s)** = Less than 500 barrels per day. **E** = Estimated.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

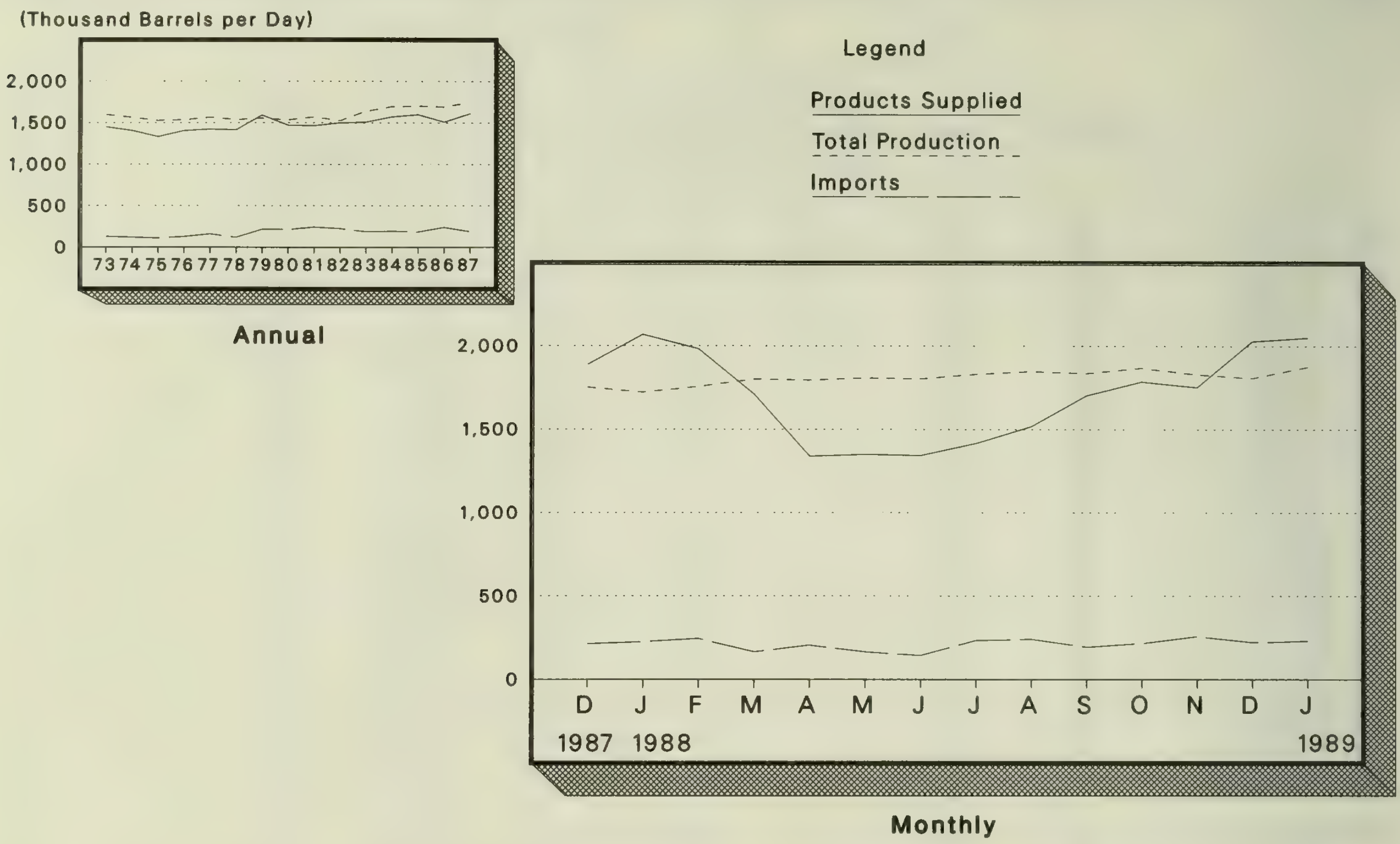

Figure S12. Liquefied Petroleum Gases Ending Stocks

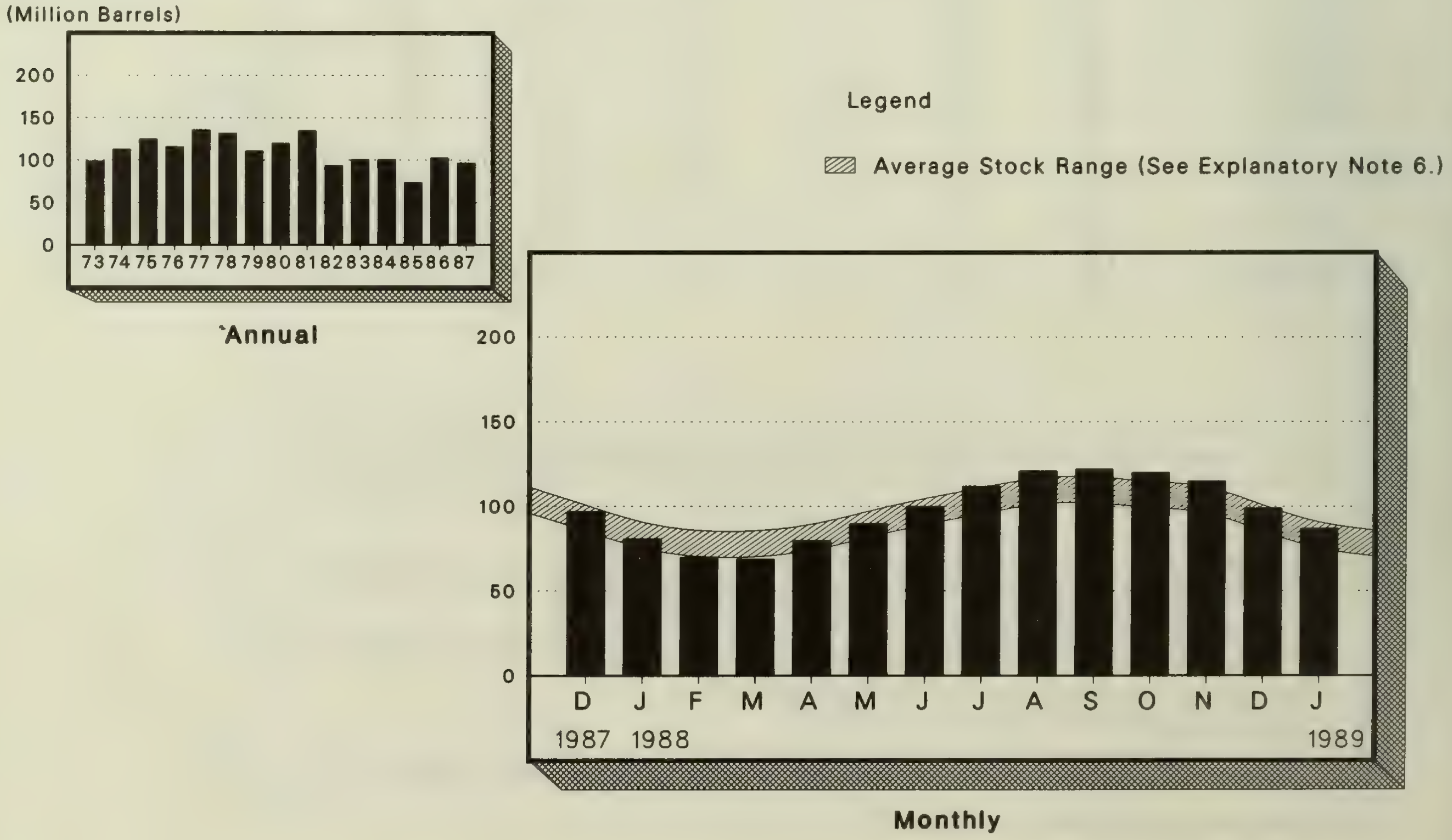

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**1,600**	**132**	35	**220**	27	**1,449**	99
1974	**Average**	**1,565**	**123**	38	**220**	25	**1,406**	[d] 113
1975	**Average**	**1,527**	**112**	[d] 35	246	26	**1,333**	125
1976	**Average**	**1,535**	**130**	-24	**260**	25	**1,404**	116
1977	**Average**	**1,566**	**161**	**55**	233	18	**1,422**	136
1978	**Average**	**1,537**	**123**	-12	**239**	20	**1,413**	132
1979	**Average**	**1,556**	**217**	-70	**236**	15	**1,592**	111
1980	**Average**	**1,535**	**216**	27	233	21	**1,469**	[d] 120
1981	**Average**	**1,571**	**244**	[d] 18	**289**	42	**1,466**	135
1982	**Average**	**1,528**	**226**	-111	**300**	**65**	**1,499**	[d] 94
1983	**Average**	**1,642**	**190**	[d] -4	253	73	**1,509**	[d] 101
1984	**Average**	**1,697**	**195**	[d] -19	291	48	**1,572**	101
1985	**Average**	**1,704**	**187**	-75	304	**62**	**1,599**	74
1986	**Average**	**1,695**	**242**	**80**	302	42	**1,512**	103
1987	January	1,751	183	-500	419	43	1,971	87
	February	1,762	201	-205	341	38	1,789	81
	March	1,761	132	10	282	52	1,550	82
	April	1,775	149	121	274	36	1,493	85
	May	1,732	142	283	269	34	1,288	94
	June	1,732	119	175	255	22	1,400	99
	July	1,764	190	145	244	30	1,534	104
	August	1,717	198	259	252	33	1,372	112
	September	1,736	288	81	266	56	1,622	114
	October	1,736	233	-59	294	23	1,711	113
	November	1,763	233	-129	356	35	1,735	109
	December	1,753	214	-372	395	56	1,887	97
	Average	**1,748**	**190**	**-15**	**304**	**38**	**1,612**	--
1988	January	1,723	226	-529	366	44	2,069	81
	February	1,757	245	-364	336	47	1,982	70
	March	1,802	165	-45	266	36	1,710	69
	April	1,796	205	362	256	43	1,339	80
	May	1,809	165	333	253	37	1,350	90
	June	1,804	144	333	234	38	1,343	100
	July	1,831	233	384	228	35	1,416	112
	August	1,848	241	281	241	50	1,517	121
	September	1,837	194	34	251	43	1,704	122
	October	1,869	216	-55	296	56	1,787	120
	November	1,831	258	-161	425	71	1,753	115
	December	1,809	222	-523	441	85	2,029	99
	Average	**1,810**	**209**	**5**	**299**	**49**	**1,666**	--
1989	January*	1,876	230	-385	421	19	2,051	87

Beginning in this issue, the "stock withdrawal" data series is reformulated as the "stock change" data series. This reformulation changes the data series from a supply item to a disposition item. Numerical values remain the same in both series but their signs are reversed.

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 10.

* See Explanatory Note 3.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**3,693**	**502**	**9**	**750**	**166**	**3,270**	**208**
1974	**Average**	**3,558**	**432**	**28**	**665**	**174**	**3,123**	[d] **218**
1975	**Average**	**3,418**	**277**	[d] **-4**	**537**	**160**	**3,002**	**219**
1976	**Average**	**3,643**	**206**	**5**	**524**	**175**	**3,145**	**220**
1977	**Average**	**3,912**	**205**	**27**	**514**	**165**	**3,410**	**230**
1978	**Average**	**4,046**	**166**	**-14**	**492**	**167**	**3,568**	**225**
1979	**Average**	**4,153**	**195**	**37**	**352**	**209**	**3,749**	**238**
1980	**Average**	**3,956**	**210**	**23**	**311**	**198**	**3,634**	[d] **247**
1981	**Average**	**3,739**	**226**	[d] **-46**	**723**	**199**	**3,088**	**282**
1982	**Average**	**3,453**	**334**	**-80**	**787**	**211**	**2,869**	[d] **253**
1983	**Average**	**3,460**	**411**	[d] **-6**	**712**	**242**	**2,923**	[d] **256**
1984	**Average**	**3,632**	**565**	[d] **-23**	**791**	**245**	**3,183**	**240**
1985	**Average**	**3,721**	**588**	**17**	**886**	**240**	**3,166**	**246**
1986	**Average**	**3,997**	**561**	**10**	**888**	**308**	**3,353**	**250**
1987	January	3,852	469	121	659	219	3,323	254
	February	3,796	687	389	352	320	3,422	265
	March	3,766	663	128	757	281	3,262	269
	April	3,933	589	-107	872	254	3,502	266
	May	4,049	529	-178	913	320	3,523	260
	June	4,203	712	-158	896	320	3,857	255
	July	4,363	550	-91	835	256	3,913	253
	August	4,340	616	148	693	238	3,876	257
	September	4,350	611	24	903	353	3,681	258
	October	4,223	686	-14	971	272	3,680	258
	November	4,010	583	20	975	305	3,294	258
	December	4,050	633	-261	1,091	330	3,523	250
	Average	**4,080**	**610**	**-1**	**829**	**289**	**3,572**	**--**
1988	January	3,988	639	143	785	354	3,345	254
	February	3,941	570	35	726	318	3,433	255
	March	4,175	603	269	656	328	3,525	264
	April	4,052	697	97	832	288	3,533	267
	May	4,097	752	341	471	274	3,763	277
	June	4,278	703	-76	759	379	3,920	275
	July	4,333	652	20	824	329	3,812	276
	August	4,440	644	-201	782	302	4,200	269
	September	4,259	582	-129	841	323	3,807	266
	October	4,193	699	-42	768	268	3,898	264
	November	4,079	745	59	808	303	3,655	266
	December	4,169	604	-444	1,129	392	3,696	252
	Average	**4,168**	**658**	**6**	**782**	**321**	**3,717**	**--**
1989	January*	4,185	732	402	714	311	3,489	265

Beginning in this issue, the "stock withdrawal" data series is reformulated as the "stock change" data series. This reformulation changes the data series from a supply item to a disposition item. Numerical values remain the same in both series but their signs are reversed.

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 10.

* See Explanatory Note 3.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1987: EIA, *Petroleum Supply Annual.*

4. January 1988 through January 1989: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 3.)

5. February 1989: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.)

6. January 1988 through February 1989: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 7.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 3 and 6).

Detailed Statistics

At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *Petroleum Supply Monthly*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication in May 1989. Revisions for 1987 data are not planned.

Table 1. U.S. Petroleum Balance, January 1989

	Commodity	Current Month	
		Thousand Barrels	Thousand Barrels per Day
	Crude Oil		
	Field Production		
(1)	Alaska	^{E} 60,692	^{E} 1,958
(2)	Lower 48 States	^{E} 184,621	^{E} 5,956
(3)	**Total U.S.**	^{E} **245,313**	^{E} **7,913**
	Net Imports		
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	169,146	5,456
(5)	SPR Imports	2,010	65
(6)	Exports	4,221	136
(7)	**Imports (Net Including SPR)**	**166,935**	**5,385**
	Other Sources		
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-2,004	-65
(9)	Other Stock Change (Withdrawal (+), Addition (-))	-2,041	-66
(10)	Product Supplied and Losses	-1,470	-47
(11)	Unaccounted for[a]	6,493	209
(12)	**Total Other Sources**	**978**	**32**
(13)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**413,226**	**13,330**
	Natural Gas Liquids (NGL)		
(14)	Field Production	51,246	1,653
(15)	Net Imports[b]	5	(s)
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	856	28
(17)	**Total NGL Supply**	**52,107**	**1,681**
	Other Liquids		
	Unfinished Oils and Gasoline Blending Components, Total		
(18)	Stock Change (Withdrawal (+), Addition (-))	-6,751	-218
(19)	Imports	11,631	375
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	2,215	71
(21)	Refinery Processing Gain[a]	22,542	727
(22)	Crude Oil Product Supplied	1,463	47
(23)	**Total Other Liquids** (23) = (18) through (22)	**31,100**	**1,003**
(24)	**Total Production of Products** (24) = (13) + (17) + (23)	**496,433**	**16,014**
	Net Imports of Refined Products		
(25)	Imports (Gross)	66,123	2,133
(26)	Exports	19,021	614
(27)	**Imports (Net)**	**47,102**	**1,519**
(28)	**Total New Supply of Products** (28) = (24) + (27)	**543,535**	**17,533**
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	-9,983	-322
(30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	533,552	17,211
(31)	Finished Motor Gasoline	208,707	6,732
(32)	Distillate Fuel Oil	102,172	3,296
(33)	Residual Fuel Oil	49,469	1,596
(34)	Liquefied Petroleum Gases	63,592	2,051
(35)	Other[c]	108,149	3,489
(36)	Crude Oil	1,463	47
(37)	**Total Products Supplied** (37) = (31) through (36)	533,552	**17,211**
	Ending Stocks, All Oils		
(38)	Crude Oil (Excluding SPR)	333,291	--
(39)	Strategic Petroleum Reserve	561,519	--
(40)	Finished Motor Gasoline	205,770	--
(41)	Distillate Fuel Oil	120,290	--
(42)	Residual Fuel Oil	46,966	--
(43)	Liquefied Petroleum Gases	86,958	--
(44)	Other[c]	264,723	--
(45)	**Total Stocks** (45) = (38) through (44)	**1,619,517**	--

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[a] A balancing item.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

E = Estimated.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 245,313	--	171,156	6,493	4,045	7	413,226	4,221	1,463	894,810
Natural Gas Liquids and LRGs	**51,246**	**16,315**	**7,467**	**--**	**-12,783**	**--**	**19,019**	**901**	**67,891**	**92,871**
Pentanes Plus	9,403	--	329	--	-856	--	5,965	324	4,299	5,913
Liquefied Petroleum Gases	41,843	16,315	7,138	--	-11,927	--	13,054	577	63,592	86,958
Ethane/Ethylene	16,774	338	375	--	-470	--	126	3	17,828	17,553
Propane/Propylene	15,412	12,617	4,763	--	-5,142	--	372	428	37,134	45,248
Normal Butane/Butylene	5,304	2,824	1,666	--	-4,821	--	8,170	146	6,299	16,625
Isobutane	4,353	536	334	--	-1,494	--	4,386	0	2,331	7,532
Other Liquids	**2,215**	**--**	**11,631**	**--**	**6,751**	**--**	**16,175**	**0**	**-9,080**	**145,900**
Other Hydrocarbons/Alcohol	2,215	--	0	--	-42	--	2,257	0	0	493
Unfinished Oils	--	--	10,689	--	2,577	--	15,986	0	-7,874	102,390
Motor Gasoline Blend. Comp.	--	--	942	--	4,228	--	-2,080	0	-1,206	42,779
Aviation Gasoline Blend. Comp.	--	--	0	--	-12	--	12	0	0	238
Finished Petroleum Products	**--**	**454,647**	**58,985**	**--**	**21,910**	**--**	**--**	**18,444**	**473,278**	**485,936**
Finished Motor Gasoline	--	214,990	10,833	--	16,090	--	--	1,026	208,707	205,770
Leaded	--	31,717	129	--	1,407	--	--	67	30,372	41,536
Unleaded	--	183,273	10,704	--	14,683	--	--	959	178,335	164,234
Finished Aviation Gasoline	--	589	1	--	-122	--	--	0	712	1,996
Jet Fuel	--	46,586	2,642	--	759	--	--	2,317	46,152	44,487
Naphtha-Type Jet Fuel	--	5,908	85	--	573	--	--	20	5,400	6,624
Kerosene-Type Jet Fuel	--	40,678	2,557	--	186	--	--	2,297	40,752	37,863
Kerosene	--	3,401	1,042	--	61	--	--	31	4,351	7,344
Distillate Fuel Oil	--	92,154	10,249	--	-3,179	--	--	3,410	102,172	120,290
Residual Fuel Oil	--	29,399	27,184	--	2,418	--	--	4,696	49,469	46,966
Naphtha for Petro. Feed. Use	--	4,003	3,425	--	222	--	--	87	7,119	2,252
Other Oils for Petro. Feed. Use	--	5,959	2,061	--	-269	--	--	599	7,690	1,474
Special Naphthas	--	1,986	319	--	-244	--	--	235	2,314	3,305
Lubricants	--	5,355	376	--	975	--	--	411	4,345	14,273
Waxes	--	555	45	--	7	--	--	53	540	845
Petroleum Coke	--	17,524	55	--	151	--	--	5,530	11,898	7,941
Asphalt and Road Oil	--	8,413	694	--	4,808	--	--	11	4,288	25,625
Still Gas	--	21,270	0	--	0	--	--	0	21,270	0
Miscellaneous Products	--	2,463	59	--	233	--	--	37	2,252	3,368
Total	298,774	470,962	249,239	6,493	19,923	7	448,420	23,566	533,552	1,619,517

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989

(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 245,313	--	171,156	6,493	4,045	7	413,226	4,221	1,463	894,810
Natural Gas Liquids and LRGs	51,246	16,315	7,467	--	-12,783	--	19,019	901	67,891	92,871
Pentanes Plus	9,403	--	329	--	-856	--	5,965	324	4,299	5,913
Liquefied Petroleum Gases	41,843	16,315	7,138	--	-11,927	--	13,054	577	63,592	86,958
Ethane/Ethylene	16,774	338	375	--	-470	--	126	3	17,828	17,553
Propane/Propylene	15,412	12,617	4,763	--	-5,142	--	372	428	37,134	45,248
Normal Butane/Butylene	5,304	2,824	1,666	--	-4,821	--	8,170	146	6,299	16,625
Isobutane	4,353	536	334	--	-1,494	--	4,386	0	2,331	7,532
Other Liquids	2,215	--	11,631	--	6,751	--	16,175	0	-9,080	145,900
Other Hydrocarbons/Alcohol	2,215	--	0	--	-42	--	2,257	0	0	493
Unfinished Oils	--	--	10,689	--	2,577	--	15,986	0	-7,874	102,390
Motor Gasoline Blend. Comp.	--	--	942	--	4,228	--	-2,080	0	-1,206	42,779
Aviation Gasoline Blend. Comp.	--	--	0	--	-12	--	12	0	0	238
Finished Petroleum Products	--	454,647	58,985	--	21,910	--	--	18,444	473,278	485,936
Finished Motor Gasoline	--	214,990	10,833	--	16,090	--	--	1,026	208,707	205,770
Leaded	--	31,717	129	--	1,407	--	--	67	30,372	41,536
Unleaded	--	183,273	10,704	--	14,683	--	--	959	178,335	164,234
Finished Aviation Gasoline	--	589	1	--	-122	--	--	0	712	1,996
Jet Fuel	--	46,586	2,642	--	759	--	--	2,317	46,152	44,487
Naphtha-Type Jet Fuel	--	5,908	85	--	573	--	--	20	5,400	6,624
Kerosene-Type Jet Fuel	--	40,678	2,557	--	186	--	--	2,297	40,752	37,863
Kerosene	--	3,401	1,042	--	61	--	--	31	4,351	7,344
Distillate Fuel Oil	--	92,154	10,249	--	-3,179	--	--	3,410	102,172	120,290
Residual Fuel Oil	--	29,399	27,184	--	2,418	--	--	4,696	49,469	46,966
Naphtha for Petro. Feed. Use	--	4,003	3,425	--	222	--	--	87	7,119	2,252
Other Oils for Petro. Feed. Use	--	5,959	2,061	--	-269	--	--	599	7,690	1,474
Special Naphthas	--	1,986	319	--	-244	--	--	235	2,314	3,305
Lubricants	--	5,355	376	--	975	--	--	411	4,345	14,273
Waxes	--	555	45	--	7	--	--	53	540	845
Petroleum Coke	--	17,524	55	--	151	--	--	5,530	11,898	7,941
Asphalt and Road Oil	--	8,413	694	--	4,808	--	--	11	4,288	25,625
Still Gas	--	21,270	0	--	0	--	--	0	21,270	0
Miscellaneous Products	--	2,463	59	--	233	--	--	37	2,252	3,368
Total	298,774	470,962	249,239	6,493	19,923	7	448,420	23,566	533,552	1,619,517

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,913	--	5,521	209	130	(s)	13,330	136	47
Natural Gas Liquids and LRGs	**1,653**	**526**	**241**	**--**	**-412**	**--**	**614**	**29**	**2,190**
Pentanes Plus	303	--	11	--	-28	--	192	10	139
Liquefied Petroleum Gases	1,350	526	230	--	-385	--	421	19	2,051
Ethane/Ethylene	541	11	12	--	-15	--	4	(s)	575
Propane/Propylene	497	407	154	--	-166	--	12	14	1,198
Normal Butane/Butylene	171	91	54	--	-156	--	264	5	203
Isobutane	140	17	11	--	-48	--	141	0	75
Other Liquids	**71**	**--**	**375**	**--**	**218**	**--**	**522**	**0**	**-293**
Other Hydrocarbons/Alcohol	71	--	0	--	-1	--	73	0	0
Unfinished Oils	--	--	345	--	83	--	516	0	-254
Motor Gasoline Blend. Comp.	--	--	30	--	136	--	-67	0	-39
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	0
Finished Petroleum Products	**--**	**14,666**	**1,903**	**--**	**707**	**--**	**--**	**595**	**15,267**
Finished Motor Gasoline	--	6,935	349	--	519	--	--	33	6,732
Leaded	--	1,023	4	--	45	--	--	2	980
Unleaded	--	5,912	345	--	474	--	--	31	5,753
Finished Aviation Gasoline	--	19	(s)	--	-4	--	--	0	23
Jet Fuel	--	1,503	85	--	24	--	--	75	1,489
Naphtha-Type Jet Fuel	--	191	3	--	18	--	--	1	174
Kerosene-Type Jet Fuel	--	1,312	82	--	6	--	--	74	1,315
Kerosene	--	110	34	--	2	--	--	1	140
Distillate Fuel Oil	--	2,973	331	--	-103	--	--	110	3,296
Residual Fuel Oil	--	948	877	--	78	--	--	151	1,596
Naphtha for Petro. Feed. Use	--	129	110	--	7	--	--	3	230
Other Oils for Petro. Feed. Use	--	192	66	--	-9	--	--	19	248
Special Naphthas	--	64	10	--	-8	--	--	8	75
Lubricants	--	173	12	--	31	--	--	13	140
Waxes	--	18	1	--	(s)	--	--	2	17
Petroleum Coke	--	565	2	--	5	--	--	178	384
Asphalt and Road Oil	--	271	22	--	155	--	--	(s)	138
Still Gas	--	686	0	--	0	--	--	0	686
Miscellaneous Products	--	79	2	--	8	--	--	1	73
Total	**9,638**	**15,192**	**8,040**	**209**	**643**	**(s)**	**14,465**	**760**	**17,211**

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	**E 7,913**	--	**5,521**	**209**	**130**	(s)	**13,330**	**136**	**47**
Natural Gas Liquids and LRGs	**1,653**	**526**	**241**	--	**-412**	--	**614**	**29**	**2,190**
Pentanes Plus	303	--	11	--	-28	--	192	10	139
Liquefied Petroleum Gases	1,350	526	230	--	-385	--	421	19	2,051
Ethane/Ethylene	541	11	12	--	-15	--	4	(s)	575
Propane/Propylene	497	407	154	--	-166	--	12	14	1,198
Normal Butane/Butylene	171	91	54	--	-156	--	264	5	203
Isobutane	140	17	11	--	-48	--	141	0	75
Other Liquids	**71**	--	**375**	--	**218**	--	**522**	**0**	**-293**
Other Hydrocarbons/Alcohol	71	--	0	--	-1	--	73	0	0
Unfinished Oils	--	--	345	--	83	--	516	0	-254
Motor Gasoline Blend. Comp.	--	--	30	--	136	--	-67	0	-39
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	0
Finished Petroleum Products	--	**14,666**	**1,903**	--	**707**	--	--	**595**	**15,267**
Finished Motor Gasoline	--	6,935	349	--	519	--	--	33	6,732
Leaded	--	1,023	4	--	45	--	--	2	980
Unleaded	--	5,912	345	--	474	--	--	31	5,753
Finished Aviation Gasoline	--	19	(s)	--	-4	--	--	0	23
Jet Fuel	--	1,503	85	--	24	--	--	75	1,489
Naphtha-Type Jet Fuel	--	191	3	--	18	--	--	1	174
Kerosene-Type Jet Fuel	--	1,312	82	--	6	--	--	74	1,315
Kerosene	--	110	34	--	2	--	--	1	140
Distillate Fuel Oil	--	2,973	331	--	-103	--	--	110	3,296
Residual Fuel Oil	--	948	877	--	78	--	--	151	1,596
Naphtha for Petro. Feed. Use	--	129	110	--	7	--	--	3	230
Other Oils for Petro. Feed. Use	--	192	66	--	-9	--	--	19	248
Special Naphthas	--	64	10	--	-8	--	--	8	75
Lubricants	--	173	12	--	31	--	--	13	140
Waxes	--	18	1	--	(s)	--	--	2	17
Petroleum Coke	--	565	2	--	5	--	--	178	384
Asphalt and Road Oil	--	271	22	--	155	--	--	(s)	138
Still Gas	--	686	0	--	0	--	--	0	686
Miscellaneous Products	--	79	2	--	8	--	--	1	73
Total	**9,638**	**15,192**	**8,040**	**209**	**643**	(s)	**14,465**	**760**	**17,211**

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[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I -- Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	**E 1,045**	**--**	**36,214**	**720**	**1,859**	**-750**	**6**	**40,582**	**(s)**	**0**	**14,80**
Natural Gas Liquids and LRGs	**891**	**1,832**	**1,727**	**--**	**4,204**	**-77**	**--**	**278**	**44**	**8,409**	**4,75**
Pentanes Plus	103	--	211	--	0	11	--	28	32	243	6
Liquefied Petroleum Gases	788	1,832	1,516	--	4,204	-88	--	250	12	8,166	4,69
Ethane/Ethylene	246	142	0	--	0	-8	--	0	3	393	1
Propane/Propylene	362	1,483	1,264	--	4,047	18	--	0	5	7,133	3,86
Normal Butane/Butylene	129	163	249	--	157	-98	--	225	4	567	74
Isobutane	51	44	3	--	0	0	--	25	0	73	7
Other Liquids	**39**	**--**	**4,337**	**--**	**284**	**161**	**--**	**7,393**	**0**	**-2,894**	**17,45**
Other Hydrocarbons/Alcohol	39	--	0	--	0	0	--	39	0	0	
Unfinished Oils	--	--	3,654	--	140	49	--	6,765	0	-3,020	12,41
Motor Gasoline Blend. Comp.	--	--	683	--	144	112	--	589	0	126	5,03
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	
Finished Petroleum Products	**--**	**48,519**	**50,764**	**--**	**81,648**	**6,224**	**--**	**--**	**352**	**174,355**	**156,40**
Finished Motor Gasoline	--	21,464	10,344	--	44,716	5,458	--	--	2	71,064	63,03
Leaded	--	1,540	91	--	4,956	538	--	--	(s)	6,049	8,49
Unleaded	--	19,924	10,253	--	39,760	4,920	--	--	2	65,015	54,54
Finished Aviation Gasoline	--	-3	0	--	226	-51	--	--	0	274	32
Jet Fuel	--	2,907	2,090	--	11,278	-149	--	--	(s)	16,424	10,26
Naphtha-Type Jet Fuel	--	555	0	--	246	8	--	--	(s)	793	98
Kerosene-Type Jet Fuel	--	2,352	2,090	--	11,032	-157	--	--	0	15,631	9,27
Kerosene	--	595	711	--	1,280	165	--	--	3	2,418	3,33
Distillate Fuel Oil	--	12,421	9,811	--	22,373	-2,894	--	--	10	47,489	46,32
Residual Fuel Oil	--	4,967	26,425	--	549	2,543	--	--	5	29,393	21,34
Petrochemical Feedstocks[e]	--	267	268	--	24	-5	--	--	11	553	37
Special Naphthas	--	15	6	--	149	-188	--	--	187	171	96
Lubricants	--	772	348	--	788	352	--	--	89	1,467	3,26
Waxes	--	84	20	--	16	-8	--	--	4	124	8
Petroleum Coke	--	1,328	22	--	0	135	--	--	22	1,193	99
Asphalt and Road Oil	--	1,188	664	--	200	674	--	--	1	1,377	5,19
Still Gas	--	2,082	0	--	0	0	--	--	0	2,082	
Miscellaneous Products	--	432	55	--	49	192	--	--	19	325	90
Total	**1,975**	**50,351**	**93,042**	**720**	**87,995**	**5,558**	**6**	**48,253**	**396**	**179,870**	**193,42**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 34**	**--**	**1,168**	**23**	**60**	**-24**	**(s)**	**1,309**	**(s)**	**0**
Natural Gas Liquids and LRGs	**29**	**59**	**56**	**--**	**136**	**-2**	**--**	**9**	**1**	**271**
Pentanes Plus	3	--	7	--	0	(s)	--	1	1	8
Liquefied Petroleum Gases	25	59	49	--	136	-3	--	8	(s)	263
Ethane/Ethylene	8	5	0	--	0	(s)	--	0	(s)	13
Propane/Propylene	12	48	41	--	131	1	--	0	(s)	230
Normal Butane/Butylene	4	5	8	--	5	-3	--	7	(s)	18
Isobutane	2	1	(s)	--	0	0	--	1	0	2
Other Liquids	**1**	**—**	**140**	**--**	**9**	**5**	**--**	**238**	**0**	**-93**
Other Hydrocarbons/Alcohol	1	--	0	--	0	0	--	1	0	0
Unfinished Oils	--	--	118	--	5	2	--	218	0	-97
Motor Gasoline Blend. Comp.	--	--	22	--	5	4	--	19	0	4
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	**--**	**1,565**	**1,638**	**--**	**2,634**	**201**	**--**	**--**	**11**	**5,624**
Finished Motor Gasoline	--	692	334	--	1,442	176	--	--	(s)	2,292
Leaded	--	50	3	--	160	17	--	--	(s)	195
Unleaded	--	643	331	--	1,283	159	--	--	(s)	2,097
Finished Aviation Gasoline	--	(s)	0	--	7	-2	--	--	0	9
Jet Fuel	--	94	67	--	364	-5	--	--	(s)	530
Naphtha-Type Jet Fuel	--	18	0	--	8	(s)	--	--	(s)	26
Kerosene-Type Jet Fuel	--	76	67	--	356	-5	--	--	0	504
Kerosene	--	19	23	--	41	5	--	--	(s)	78
Distillate Fuel Oil	--	401	316	--	722	-93	--	--	(s)	1,532
Residual Fuel Oil	--	160	852	--	18	82	--	--	(s)	948
Petrochemical Feedstocks[e]	--	9	0	--	1	(s)	--	--	0	18
Special Naphthas	--	(s)	(s)	--	5	-6	--	--	6	6
Lubricants	--	25	11	--	25	11	--	--	3	47
Waxes	--	3	1	--	1	(s)	--	--	(s)	4
Petroleum Coke	--	43	1	--	0	4	--	--	1	38
Asphalt and Road Oil	--	38	21	--	6	22	--	--	(s)	44
Still Gas	--	67	0	--	0	0	--	--	0	67
Miscellaneous Products	--	14	2	--	2	6	--	--	1	10
Total	**64**	**1,624**	**3,001**	**23**	**2,839**	**179**	**(s)**	**1,557**	**13**	**5,802**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II -- Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	[E] 24,750	--	14,464	986	49,007	-2,127	0	90,874	460	0	69,449
Natural Gas Liquids and LRGs	9,896	2,728	4,412	--	2,111	-3,947	--	5,394	31	17,669	28,072
Pentanes Plus	1,460	--	35	--	888	-166	--	1,392	11	1,146	2,179
Liquefied Petroleum Gases	8,436	2,728	4,377	--	1,223	-3,781	--	4,002	20	16,523	25,893
Ethane/Ethylene	2,848	6	0	--	-1,292	-324	--	0	0	1,886	3,893
Propane/Propylene	3,597	2,965	3,202	--	1,712	-1,882	--	71	12	13,275	15,565
Normal Butane/Butylene	1,293	-246	1,059	--	175	-1,441	--	2,490	8	1,224	4,299
Isobutane	698	3	116	--	628	-134	--	1,441	0	138	2,136
Other Liquids	466	--	0	--	280	734	--	3,206	0	-3,194	23,440
Other Hydrocarbons/Alcohol	466	--	0	--	0	20	--	446	0	0	200
Unfinished Oils	--	--	0	--	348	-297	--	1,807	0	-1,162	14,803
Motor Gasoline Blend. Comp.	--	--	0	--	-68	1,048	--	916	0	-2,032	8,321
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-37	--	37	0	0	116
Finished Petroleum Products	--	102,703	810	--	18,520	13,960	--	--	285	107,788	125,020
Finished Motor Gasoline	--	55,469	84	--	12,299	8,168	--	--	7	59,677	60,712
Leaded	--	6,992	22	--	2,082	1,136	--	--	2	7,958	14,348
Unleaded	--	48,477	62	--	10,217	7,032	--	--	5	51,719	46,364
Finished Aviation Gasoline	--	143	0	--	59	63	--	--	0	139	540
Jet Fuel	--	6,040	81	--	3,074	497	--	--	1	8,697	8,951
Naphtha-Type Jet Fuel	--	551	81	--	-68	20	--	--	0	544	905
Kerosene-Type Jet Fuel	--	5,489	0	--	3,142	477	--	--	1	8,153	8,046
Kerosene	--	940	0	--	-141	-62	--	--	1	860	1,870
Distillate Fuel Oil	--	22,101	219	--	3,548	1,654	--	--	3	24,211	32,959
Residual Fuel Oil	--	2,877	220	--	-577	-26	--	--	0	2,546	3,452
Petrochemical Feedstocks[e]	--	1,691	25	--	-22	88	--	--	1	1,605	430
Special Naphthas	--	525	130	--	68	-45	--	--	5	763	670
Lubricants	--	751	28	--	184	229	--	--	21	713	2,419
Waxes	--	41	19	--	0	-9	--	--	2	67	106
Petroleum Coke	--	3,890	0	--	0	281	--	--	243	3,366	1,767
Asphalt and Road Oil	--	3,085	0	--	34	3,055	--	--	1	63	10,674
Still Gas	--	4,742	0	--	0	0	--	--	0	4,742	
Miscellaneous Products	--	408	4	--	-6	67	--	--	1	338	470
Total	35,112	105,431	19,686	986	69,918	8,620	0	99,474	776	122,263	245,98

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 798**	**--**	**467**	**32**	**1,581**	**-69**	**0**	**2,931**	**15**	**0**
Natural Gas Liquids and LRGs	**319**	**88**	**142**	**--**	**68**	**-127**	**--**	**174**	**1**	**570**
Pentanes Plus	47	--	1	--	29	-5	--	45	(s)	37
Liquefied Petroleum Gases	272	88	141	--	39	-122	--	129	1	533
Ethane/Ethylene	92	(s)	0	--	-42	-10	--	0	0	61
Propane/Propylene	116	96	103	--	55	-61	--	2	(s)	428
Normal Butane/Butylene	42	-8	34	--	6	-46	--	80	(s)	39
Isobutane	23	(s)	4	--	20	-4	--	46	0	4
Other Liquids	**15**	**--**	**0**	**--**	**9**	**24**	**--**	**103**	**0**	**-103**
Other Hydrocarbons/Alcohol	15	--	0	--	0	1	--	14	0	0
Unfinished Oils	--	--	0	--	11	-10	--	58	0	-37
Motor Gasoline Blend. Comp.	--	--	0	--	-2	34	--	30	0	-66
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-1	--	1	0	0
Finished Petroleum Products	**--**	**3,313**	**26**	**--**	**597**	**450**	**--**	**--**	**9**	**3,477**
Finished Motor Gasoline	--	1,789	3	--	397	263	--	--	(s)	1,925
Leaded	--	226	1	--	67	37	--	--	(s)	257
Unleaded	--	1,564	2	--	330	227	--	--	(s)	1,668
Finished Aviation Gasoline	--	5	0	--	2	2	--	--	0	4
Jet Fuel	--	195	3	--	99	16	--	--	(s)	281
Naphtha-Type Jet Fuel	--	18	3	--	-2	1	--	--	0	18
Kerosene-Type Jet Fuel	--	177	0	--	101	15	--	--	(s)	263
Kerosene	--	30	0	--	-5	-2	--	--	(s)	28
Distillate Fuel Oil	--	713	7	--	114	53	--	--	(s)	781
Residual Fuel Oil	--	93	7	--	-19	-1	--	--	0	82
Petrochemical Feedstocks[e]	--	55	0	--	-1	3	--	--	0	52
Special Naphthas	--	17	4	--	2	-1	--	--	(s)	25
Lubricants	--	24	1	--	6	7	--	--	1	23
Waxes	--	1	1	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	125	0	--	0	9	--	--	8	109
Asphalt and Road Oil	--	100	0	--	1	99	--	--	(s)	2
Still Gas	--	153	0	--	0	0	--	--	0	153
Miscellaneous Products	--	13	(s)	--	(s)	2	--	--	(s)	11
Total	**1,133**	**3,401**	**635**	**32**	**2,255**	**278**	**0**	**3,209**	**25**	**3,944**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III -- Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 110,379	--	112,782	1,921	-28,802	8,091	0	188,189	0	0	720,367
Natural Gas Liquids and LRGs	33,664	9,915	696	--	-4,681	-7,823	--	10,003	553	36,861	57,069
Pentanes Plus	5,740	--	1	--	-708	-724	--	3,480	150	2,127	3,478
Liquefied Petroleum Gases	27,924	9,915	695	--	-3,973	-7,099	--	6,523	403	34,734	53,591
Ethane/Ethylene	12,393	154	375	--	2,187	-143	--	126	0	15,126	13,495
Propane/Propylene	9,724	6,694	1	--	-5,448	-2,905	--	295	271	13,310	25,045
Normal Butane/Butylene	2,658	2,767	153	--	-213	-2,656	--	3,681	133	4,207	10,254
Isobutane	3,149	300	166	--	-499	-1,395	--	2,421	0	2,090	4,797
Other Liquids	868	--	7,239	--	-709	4,056	--	7,055	0	-3,713	67,075
Other Hydrocarbons/Alcohol	868	--	0	--	0	-66	--	934	0	0	233
Unfinished Oils	--	--	6,980	--	-633	1,618	--	8,706	0	-3,977	49,176
Motor Gasoline Blend. Comp.	--	--	259	--	-76	2,477	--	-2,558	0	264	17,554
Aviation Gasoline Blend. Comp.	--	--	0	--	0	27	--	-27	0	0	112
Finished Petroleum Products	--	204,729	6,832	--	-102,564	215	--	--	8,260	100,522	129,178
Finished Motor Gasoline	--	94,299	237	--	-58,300	185	--	--	583	35,468	49,994
Leaded	--	13,274	0	--	-7,250	-431	--	--	58	6,397	9,159
Unleaded	--	81,025	237	--	-51,050	616	--	--	525	29,071	40,835
Finished Aviation Gasoline	--	301	0	--	-306	-136	--	--	0	131	560
Jet Fuel	--	23,875	384	--	-15,165	783	--	--	909	7,402	15,814
Naphtha-Type Jet Fuel	--	2,905	0	--	-390	406	--	--	19	2,090	2,339
Kerosene-Type Jet Fuel	--	20,970	384	--	-14,775	377	--	--	890	5,312	13,475
Kerosene	--	1,707	331	--	-1,139	-46	--	--	28	917	1,881
Distillate Fuel Oil	--	41,019	0	--	-26,140	-760	--	--	1,203	14,436	27,398
Residual Fuel Oil	--	10,202	458	--	28	-61	--	--	1,388	9,361	12,368
Petrochemical Feedstocks[e]	--	7,502	5,193	--	-2	-61	--	--	500	12,254	2,672
Special Naphthas	--	1,371	175	--	-217	-7	--	--	43	1,293	1,502
Lubricants	--	3,145	0	--	-1,030	13	--	--	193	1,909	6,772
Waxes	--	325	0	--	-16	17	--	--	40	252	47
Petroleum Coke	--	7,609	27	--	0	-297	--	--	3,360	4,573	3,368
Asphalt and Road Oil	--	2,333	27	--	-234	539	--	--	1	1,586	4,69
Still Gas	--	9,622	0	--	0	0	--	--	0	9,622	
Miscellaneous Products	--	1,419	0	--	-43	46	--	--	14	1,316	1,68
Total	144,911	214,644	127,549	1,921	-136,756	4,539	0	205,247	8,813	133,670	973,68

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,561	--	3,638	62	-929	261	0	6,071	0	0
Natural Gas Liquids and LRGs	1,086	320	22	--	-151	-252	--	323	18	1,189
Pentanes Plus	185	--	(s)	--	-23	-23	--	112	5	69
Liquefied Petroleum Gases	901	320	22	--	-128	-229	--	210	13	1,120
Ethane/Ethylene	400	5	12	--	71	-5	--	4	0	488
Propane/Propylene	314	216	(s)	--	-176	-94	--	10	9	429
Normal Butane/Butylene	86	89	5	--	-7	-86	--	119	4	136
Isobutane	102	10	5	--	-16	-45	--	78	0	67
Other Liquids	28	--	234	--	-23	131	--	228	0	-120
Other Hydrocarbons/Alcohol	28	--	0	--	0	-2	--	30	0	0
Unfinished Oils	--	--	225	--	-20	52	--	281	0	-128
Motor Gasoline Blend. Comp.	--	--	8	--	-2	80	--	-83	0	9
Aviation Gasoline Blend. Comp.	--	--	0	--	0	1	--	-1	0	0
Finished Petroleum Products	--	6,604	220	--	-3,309	7	--	--	266	3,243
Finished Motor Gasoline	--	3,042	8	--	-1,881	6	--	--	19	1,144
Leaded	--	428	0	--	-234	-14	--	--	2	206
Unleaded	--	2,614	8	--	-1,647	20	--	--	17	938
Finished Aviation Gasoline	--	10	0	--	-10	-4	--	--	0	4
Jet Fuel	--	770	12	--	-489	25	--	--	29	239
Naphtha-Type Jet Fuel	--	94	0	--	-13	13	--	--	1	67
Kerosene-Type Jet Fuel	--	676	12	--	-477	12	--	--	29	171
Kerosene	--	55	11	--	-37	-1	--	--	1	30
Distillate Fuel Oil	--	1,323	0	--	-843	-25	--	--	39	466
Residual Fuel Oil	--	329	15	--	1	-2	--	--	45	302
Petrochemical Feedstocks[e]	--	242	0	--	(s)	-2	--	--	0	395
Special Naphthas	--	44	6	--	-7	(s)	--	--	1	42
Lubricants	--	101	0	--	-33	(s)	--	--	6	62
Waxes	--	10	0	--	-1	1	--	--	1	8
Petroleum Coke	--	245	1	--	0	-10	--	--	108	148
Asphalt and Road Oil	--	75	1	--	-8	17	--	--	(s)	51
Still Gas	--	310	0	--	0	0	--	--	0	310
Miscellaneous Products	--	46	0	--	-1	1	--	--	(s)	42
Total	4,675	6,924	4,114	62	-4,411	146	0	6,621	284	4,312

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV -- Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 16,694	--	2,231	1,069	-6,096	528	0	13,370	0	0	12,319
Natural Gas Liquids and LRGs	4,258	193	455	--	-1,634	19	--	871	0	2,382	1,137
Pentanes Plus	791	--	82	--	-180	0	--	209	0	484	143
Liquefied Petroleum Gases	3,467	193	373	--	-1,454	19	--	662	0	1,898	994
Ethane/Ethylene	1,285	0	0	--	-895	5	--	0	0	385	151
Propane/Propylene	1,385	214	183	--	-311	-22	--	0	0	1,493	428
Normal Butane/Butylene	570	-23	184	--	-119	19	--	581	0	12	275
Isobutane	227	2	6	--	-129	17	--	81	0	8	140
Other Liquids	7	--	0	--	0	318	--	-344	0	33	4,505
Other Hydrocarbons/Alcohol	7	--	0	--	0	-8	--	15	0	0	32
Unfinished Oils	--	--	0	--	0	138	--	-287	0	149	1,944
Motor Gasoline Blend. Comp.	--	--	0	--	0	188	--	-72	0	-116	2,529
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	14,116	215	--	-871	852	--	--	6	12,602	13,415
Finished Motor Gasoline	--	7,362	59	--	-668	430	--	--	0	6,323	5,625
Leaded	--	2,390	11	--	-273	204	--	--	0	1,924	2,309
Unleaded	--	4,972	48	--	-395	226	--	--	0	4,399	3,316
Finished Aviation Gasoline	--	2	0	--	21	-10	--	--	0	33	37
Jet Fuel	--	1,260	0	--	247	-3	--	--	1	1,509	1,065
Naphtha-Type Jet Fuel	--	342	0	--	-92	-44	--	--	1	293	375
Kerosene-Type Jet Fuel	--	918	0	--	339	41	--	--	0	1,216	690
Kerosene	--	17	0	--	0	9	--	--	0	8	51
Distillate Fuel Oil	--	3,423	154	--	-471	-3	--	--	0	3,109	2,828
Residual Fuel Oil	--	386	0	--	0	16	--	--	0	370	679
Petrochemical Feedstocks[e]	--	33	0	--	0	17	--	--	0	16	27
Special Naphthas	--	-2	0	--	0	-3	--	--	(s)	1	4
Lubricants	--	36	0	--	0	14	--	--	4	18	83
Waxes	--	24	2	--	0	-3	--	--	0	29	75
Petroleum Coke	--	353	0	--	0	7	--	--	(s)	346	22
Asphalt and Road Oil	--	567	0	--	0	379	--	--	(s)	188	2,858
Still Gas	--	564	0	--	0	0	--	--	0	564	
Miscellaneous Products	--	91	0	--	0	2	--	--	(s)	89	61
Total	20,959	14,309	2,901	1,069	-8,601	1,717	0	13,897	6	15,017	31,37

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 539**	**--**	**72**	**34**	**-197**	**17**	**0**	**431**	**0**	**0**
Natural Gas Liquids and LRGs	**137**	**6**	**15**	**--**	**-53**	**1**	**--**	**28**	**0**	**77**
Pentanes Plus	26	--	3	--	-6	0	--	7	0	16
Liquefied Petroleum Gases	112	6	12	--	-47	1	--	21	0	61
Ethane/Ethylene	41	0	0	--	-29	(s)	--	0	0	12
Propane/Propylene	45	7	6	--	-10	-1	--	0	0	48
Normal Butane/Butylene	18	-1	6	--	-4	1	--	19	0	(s)
Isobutane	7	(s)	(s)	--	-4	1	--	3	0	(s)
Other Liquids	**(s)**	**--**	**0**	**--**	**0**	**10**	**--**	**-11**	**0**	**1**
Other Hydrocarbons/Alcohol	(s)	--	0	--	0	(s)	--	(s)	0	0
Unfinished Oils	--	--	0	--	0	4	--	-9	0	5
Motor Gasoline Blend. Comp.	--	--	0	--	0	6	--	-2	0	-4
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	**--**	**455**	**7**	**--**	**-28**	**27**	**--**	**--**	**(s)**	**407**
Finished Motor Gasoline	--	237	2	--	-22	14	--	--	0	204
Leaded	--	77	(s)	--	-9	7	--	--	0	62
Unleaded	--	160	2	--	-13	7	--	--	0	142
Finished Aviation Gasoline	--	(s)	0	--	1	(s)	--	--	0	1
Jet Fuel	--	41	0	--	8	(s)	--	--	(s)	49
Naphtha-Type Jet Fuel	--	11	0	--	-3	-1	--	--	(s)	9
Kerosene-Type Jet Fuel	--	30	0	--	11	1	--	--	0	39
Kerosene	--	1	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	110	5	--	-15	(s)	--	--	0	100
Residual Fuel Oil	--	12	0	--	0	1	--	--	0	12
Petrochemical Feedstocks[e]	--	1	0	--	0	1	--	--	0	1
Special Naphthas	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Lubricants	--	1	0	--	0	(s)	--	--	(s)	1
Waxes	--	1	(s)	--	0	(s)	--	--	0	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	11
Asphalt and Road Oil	--	18	0	--	0	12	--	--	(s)	6
Still Gas	--	18	0	--	0	0	--	--	0	18
Miscellaneous Products	--	3	0	--	0	(s)	--	--	(s)	3
Total	**676**	**462**	**94**	**34**	**-277**	**55**	**0**	**448**	**(s)**	**484**

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V -- Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	E 92,445	--	5,465	1,797	-15,968	-1,697	1	80,211	3,761	1,463	77,86
Natural Gas Liquids and LRGs	2,537	1,647	177	--	0	-955	--	2,473	273	2,570	1,84
Pentanes Plus	1,309	--	0	--	0	23	--	856	131	299	5
Liquefied Petroleum Gases	1,228	1,647	177	--	0	-978	--	1,617	142	2,271	1,78
Ethane/Ethylene	2	36	0	--	0	0	--	0	0	38	
Propane/Propylene	344	1,261	113	--	0	-351	--	6	140	1,923	34
Normal Butane/Butylene	654	163	21	--	0	-645	--	1,193	2	288	1,05
Isobutane	228	187	43	--	0	18	--	418	0	22	38
Other Liquids	835	--	55	--	145	1,482	--	-1,135	0	688	33,42
Other Hydrocarbons/Alcohol	835	--	0	--	0	12	--	823	0	0	2
Unfinished Oils	--	--	55	--	145	1,069	--	-1,005	0	136	24,04
Motor Gasoline Blend. Comp.	--	--	0	--	0	403	--	-955	0	552	9,34
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-2	--	2	0	0	1
Finished Petroleum Products	--	84,580	364	--	3,267	659	--	--	9,541	78,011	61,91
Finished Motor Gasoline	--	36,396	109	--	1,953	1,849	--	--	434	36,175	26,40
Leaded	--	7,521	5	--	485	-40	--	--	7	8,044	7,23
Unleaded	--	28,875	104	--	1,468	1,889	--	--	427	28,131	19,17
Finished Aviation Gasoline	--	146	1	--	0	12	--	--	0	135	53
Jet Fuel	--	12,504	87	--	566	-369	--	--	1,406	12,120	8,39
Naphtha-Type Jet Fuel	--	1,555	4	--	304	183	--	--	0	1,680	2,01
Kerosene-Type Jet Fuel	--	10,949	83	--	262	-552	--	--	1,406	10,440	6,37
Kerosene	--	142	0	--	0	-5	--	--	(s)	147	20
Distillate Fuel Oil	--	13,190	65	--	690	-1,176	--	--	2,195	12,926	10,78
Residual Fuel Oil	--	10,967	81	--	0	-54	--	--	3,303	7,799	9,12
Petrochemical Feedstocks[e]	--	469	0	--	0	-86	--	--	174	381	22
Special Naphthas	--	77	8	--	0	-1	--	--	1	85	16
Lubricants	--	651	0	--	58	367	--	--	105	237	1,73
Waxes	--	81	4	--	0	10	--	--	7	68	10
Petroleum Coke	--	4,344	6	--	0	25	--	--	1,906	2,419	1,79
Asphalt and Road Oil	--	1,240	3	--	0	161	--	--	8	1,074	2,20
Still Gas	--	4,260	0	--	0	0	--	--	0	4,260	
Miscellaneous Products	--	113	0	--	0	-74	--	--	3	184	24
Total	95,817	86,227	6,061	1,797	-12,556	-511	1	81,549	13,575	82,732	175,04

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 2,982**	**--**	**176**	**58**	**-515**	**-55**	**(s)**	**2,587**	**121**	**47**
Natural Gas Liquids and LRGs	**82**	**53**	**6**	**--**	**0**	**-31**	**--**	**80**	**9**	**83**
Pentanes Plus	42	--	0	--	0	1	--	28	4	10
Liquefied Petroleum Gases	40	53	6	--	0	-32	--	52	5	73
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	0	1
Propane/Propylene	11	41	4	--	0	-11	--	(s)	5	62
Normal Butane/Butylene	21	5	1	--	0	-21	--	38	(s)	9
Isobutane	7	6	1	--	0	1	--	13	0	1
Other Liquids	**27**	**--**	**2**	**--**	**5**	**48**	**--**	**-37**	**0**	**22**
Other Hydrocarbons/Alcohol	27	--	0	--	0	(s)	--	27	0	0
Unfinished Oils	--	--	2	--	5	34	--	-32	0	4
Motor Gasoline Blend. Comp.	--	--	0	--	0	13	--	-31	0	18
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	**--**	**2,728**	**12**	**--**	**105**	**21**	**--**	**--**	**308**	**2,516**
Finished Motor Gasoline	--	1,174	4	--	63	60	--	--	14	1,167
Leaded	--	243	(s)	--	16	-1	--	--	(s)	259
Unleaded	--	931	3	--	47	61	--	--	14	907
Finished Aviation Gasoline	--	5	(s)	--	0	(s)	--	--	0	4
Jet Fuel	--	403	3	--	18	-12	--	--	45	391
Naphtha-Type Jet Fuel	--	50	(s)	--	10	6	--	--	0	54
Kerosene-Type Jet Fuel	--	353	3	--	8	-18	--	--	45	337
Kerosene	--	5	0	--	0	(s)	--	--	(s)	5
Distillate Fuel Oil	--	425	2	--	22	-38	--	--	71	417
Residual Fuel Oil	--	354	3	--	0	-2	--	--	107	252
Petrochemical Feedstocks[e]	--	15	0	--	0	-3	--	--	0	12
Special Naphthas	--	2	(s)	--	0	(s)	--	--	(s)	3
Lubricants	--	21	0	--	2	12	--	--	3	8
Waxes	--	3	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	140	(s)	--	0	1	--	--	61	78
Asphalt and Road Oil	--	40	(s)	--	0	5	--	--	(s)	35
Still Gas	--	137	0	--	0	0	--	--	0	137
Miscellaneous Products	--	4	0	--	0	-2	--	–	(s)	6
Total	**3,091**	**2,782**	**196**	**58**	**-405**	**-16**	**(s)**	**2,631**	**438**	**2,669**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	November 1988		January-November 1988	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 1,005**	**E 34**	**E 12,636**	**E 38**
Florida	573	19	7,142	21
New York	E 46	E 2	E 528	E 2
Pennsylvania	E 215	E 7	E 2,630	E 8
Virginia	E 1	E (s)	E 16	E (s)
West Virginia	170	6	2,363	7
Adjustment[a]	0	0	-43	(s)
PAD District II	**E 23,793**	**E 793**	**E 278,073**	**E 830**
Illinois	1,930	64	21,770	65
Indiana	288	10	3,524	11
Kansas	4,501	150	53,288	159
Kentucky	445	15	4,992	15
Michigan	E 1,850	E 62	E 21,603	E 64
Missouri	14	(s)	E 119	E (s)
Nebraska	516	17	5,451	16
North Dakota	3,146	105	36,172	108
Ohio	E 744	E 25	E 9,699	E 29
Oklahoma	10,100	337	117,812	352
South Dakota	134	4	1,520	5
Tennessee	53	2	E 552	E 2
Adjustment[a]	72	2	1,571	5
PAD District III	**E 106,659**	**E 3,555**	**E 1,213,887**	**E 3,624**
Alabama	1,691	56	19,052	57
Arkansas	E 1,072	E 36	E 12,447	E 37
Louisiana[b]	E 13,226	E 441	E 150,839	E 450
Mississippi	2,239	75	25,222	75
New Mexico	5,697	190	64,626	193
Texas[b]	59,070	1,969	673,355	2,010
Federal Offshore PAD District III	23,951	798	E 265,319	E 792
Adjustment[a]	-287	-10	3,027	9
PAD District IV	**E 15,753**	**E 525**	**E 184,929**	**E 552**
Colorado	E 2,648	E 88	E 29,442	E 88
Montana	1,837	61	E 21,332	E 64
Utah	2,568	86	30,529	91
Wyoming	8,812	294	103,821	310
Adjustment[a]	-112	-4	-195	-1
PAD District V	**92,343**	**3,078**	**1,038,309**	**3,099**
Alaska[b]	60,801	2,027	676,284	2,019
South Alaska	1,280	43	14,356	43
North Slope	59,520	1,984	661,934	1,976
Adjustment for Alaska[a]	1	(s)	-6	(s)
Arizona	9	(s)	105	(s)
California[b]	28,237	941	326,013	973
Nevada	274	9	2,955	9
Federal Offshore PAD District V	2,553	85	28,783	86
Adjustment excluding Alaska[a]	469	16	4,169	12
U.S. Total[b]	**E 239,553**	**E 7,985**	**E 2,727,834**	**E 8,143**

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Final data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 4,045; California: State - 2,208; Louisiana: State - E1,996; Texas: State - 117; U.S. Total, including Federal offshore - E34,871.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, January 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production			
Natural Gas Liquids	**205**	**686**	**891**	**762**	**416**	**8,718**	**9,896**
Pentanes Plus	22	81	103	147	99	1,214	1,460
Liquefied Petroleum Gases	183	605	788	615	317	7,504	8,436
Ethane	52	194	246	127	0	2,721	2,848
Propane	75	287	362	290	196	3,111	3,597
Normal Butane	41	88	129	103	116	1,074	1,293
Isobutane	15	36	51	95	5	598	698
				Stocks			
Natural Gas Liquids	**170**	**41**	**211**	**206**	**47**	**2,290**	**2,543**
Pentanes Plus	5	4	9	22	13	368	403
Liquefied Petroleum Gases	165	37	202	184	34	1,922	2,140
Ethane	0	0	0	17	0	457	474
Propane	99	28	127	103	27	1,098	1,228
Normal Butane	65	3	68	42	7	254	303
Isobutane	1	6	7	22	0	113	135

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
					Net Production				
Natural Gas Liquids	**18,375**	**2,831**	**7,623**	**708**	**4,127**	**33,664**	**4,258**	**2,537**	**51,246**
Pentanes Plus	3,167	577	1,344	185	467	5,740	791	1,309	9,403
Liquefied Petroleum Gases	15,208	2,254	6,279	523	3,660	27,924	3,467	1,228	41,843
Ethane	6,470	1,143	2,926	133	1,721	12,393	1,285	2	16,774
Propane	5,588	677	1,978	213	1,268	9,724	1,385	344	15,412
Normal Butane	2,310	-891	672	123	444	2,658	570	654	5,304
Isobutane	840	1,325	703	54	227	3,149	227	228	4,353
					Stocks				
Natural Gas Liquids	**1,177**	**2,260**	**728**	**148**	**170**	**4,483**	**193**	**64**	**7,494**
Pentanes Plus	425	321	266	27	31	1,070	66	19	1,567
Liquefied Petroleum Gases	752	1,939	462	121	139	3,413	127	45	5,927
Ethane	95	385	4	21	25	530	3	0	1,007
Propane	376	291	295	49	81	1,092	84	29	2,560
Normal Butane	234	837	101	38	24	1,234	34	10	1,649
Isobutane	47	426	62	13	9	557	6	6	711

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, January 1989
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**37,448**	**3,134**	**40,582**	**61,221**	**9,981**	**19,672**	**90,874**
Natural Gas Liquids	**186**	**92**	**278**	**3,165**	**429**	**1,800**	**5,394**
Pentanes Plus	28	0	28	521	62	809	1,392
Liquefied Petroleum Gases	158	92	250	2,644	367	991	4,002
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	71	0	0	71
Normal Butane	133	92	225	1,604	290	596	2,490
Isobutane	25	0	25	969	77	395	1,441
Other Liquids	**7,108**	**285**	**7,393**	**2,720**	**31**	**455**	**3,206**
Other Hydrocarbons/Alcohol	39	0	39	418	2	26	446
Unfinished Oils (net)	6,502	263	6,765	1,544	5	258	1,807
Motor Gasoline Blend. Comp. (net)	567	22	589	756	24	136	916
Aviation Gasoline Blend. Comp. (net)	0	0	0	2	0	35	37
Total Input to Refineries	**44,742**	**3,511**	**48,253**	**67,106**	**10,441**	**21,927**	**99,474**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,218	99	1,317	1,985	321	637	2,942
Operable Capacity (daily average)	1,369	109	1,478	2,195	337	731	3,263
Operating Ratio (percent)[a]	89.0	90.7	89.1	90.4	95.2	87.1	90.2
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	495	17	513	699	111	209	1,018
Catalytic Hydrocracking	49	0	49	116	0	5	121
Delayed and Fluid Coking	72	0	72	149	57	69	276
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	0.92	0.61	0.89	0.97	1.61	0.70	0.98
API Gravity, Weighted Average (degrees)	32.32	38.32	32.81	35.59	30.60	36.53	35.25
Operable Capacity (daily average)	**1,369**	**109**	**1,478**	**2,195**	**337**	**731**	**3,263**
Operating	1,331	109	1,440	2,193	337	731	3,261
Idle	38	0	38	2	0	0	2
Alaskan Crude Oil Receipts	**1,625**	**0**	**1,625**	**609**	**0**	**435**	**1,044**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, January 1989 (Continued)

(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**15,725**	**87,194**	**78,070**	**5,441**	**1,759**	**188,189**	**13,370**	**80,211**	413,226
Natural Gas Liquids	**1,981**	**4,032**	**3,399**	**372**	**219**	**10,003**	**871**	**2,473**	19,019
Pentanes Plus	1,066	1,544	511	209	150	3,480	209	856	5,965
Liquefied Petroleum Gases	915	2,488	2,888	163	69	6,523	662	1,617	13,054
Ethane	0	30	96	0	0	126	0	0	126
Propane	0	147	148	0	0	295	0	6	372
Normal Butane	610	1,461	1,527	52	31	3,681	581	1,193	8,170
Isobutane	305	850	1,117	111	38	2,421	81	418	4,386
Other Liquids	**-135**	**7,162**	**-102**	**111**	**19**	**7,055**	**-344**	**-1,135**	**16,175**
Other Hydrocarbons/Alcohol	0	440	473	0	21	934	15	823	2,257
Unfinished Oils (net)	-69	8,932	-225	86	-18	8,706	-287	-1,005	15,986
Motor Gasoline Blend. Comp. (net)	-66	-2,206	-327	25	16	-2,558	-72	-955	-2,080
Aviation Gasoline Blend. Comp. (net)	0	-4	-23	0	0	-27	0	2	12
Total Input to Refineries	**17,571**	**98,388**	**81,367**	**5,924**	**1,997**	**205,247**	**13,897**	**81,549**	448,420
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	506	2,815	2,567	174	57	6,119	441	2,691	13,510
Operable Capacity (daily average)	556	3,523	2,938	255	76	7,347	550	3,052	15,689
Operating Ratio (percent)[a]	91.0	79.9	87.4	68.4	75.1	83.3	80.2	88.2	86.1
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	174	1,127	713	32	20	2,065	148	648	4,392
Catalytic Hydrocracking	14	132	237	2	0	385	7	424	986
Delayed and Fluid Coking	9	199	362	12	0	582	18	473	1,421
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.68	0.83	1.35	1.30	0.66	1.05	0.62	1.11	1.02
API Gravity, Weighted Average (degrees)	38.91	34.50	31.92	34.90	39.74	33.86	36.62	25.81	32.59
Operable Capacity (daily average)	**556**	**3,523**	**2,938**	**255**	**76**	**7,347**	**550**	**3,052**	**15,689**
Operating	534	3,363	2,597	238	76	6,807	527	3,011	15,046
Idle	22	160	341	17	0	540	23	41	643
Alaskan Crude Oil Receipts	**0**	**4,360**	**3,022**	**294**	**0**	**7,676**	**0**	**46,117**	56,462

[a] Represents gross input divided by operable capacity.
(s) = Less than 500 barrels.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, January 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,802	30	1,832	2,160	265	303	2,728
Ethane/Ethylene	142	0	142	6	0	0	6
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,453	30	1,483	2,214	247	504	2,965
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	163	0	163	-58	13	-201	-246
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	44	0	44	-2	5	0	3
Finished Motor Gasoline	20,094	1,370	21,464	37,641	5,582	12,246	55,469
Leaded	1,310	230	1,540	2,829	1,093	3,070	6,992
Unleaded	18,784	1,140	19,924	34,812	4,489	9,176	48,477
Finished Aviation Gasoline	-3	0	-3	88	41	14	143
Jet Fuel	2,907	0	2,907	3,832	571	1,637	6,040
Naphtha-Type	555	0	555	269	24	258	551
Kerosene-Type	2,352	0	2,352	3,563	547	1,379	5,489
Kerosene	461	134	595	992	73	-125	940
Distillate Fuel Oil	11,401	1,020	12,421	14,248	2,574	5,279	22,101
Residual Fuel Oil	4,835	132	4,967	2,474	165	238	2,877
Less than 0.31 percent sulfur	1,009	19	1,028	57	0	0	57
0.31 to 1.00 percent sulfur	3,209	113	3,322	401	0	67	468
Greater than 1.00 percent sulfur	617	0	617	2,016	165	171	2,352
Naphtha for Petrochemical Feedstock Use	261	0	261	826	0	106	932
Other Oils for Petrochemical Feedstock Use	6	0	6	711	0	48	759
Special Naphthas	7	8	15	300	0	225	525
Lubricants	446	326	772	512	0	239	751
Naphthenic	175	0	175	-10	0	0	-10
Paraffinic	271	326	597	522	0	239	761
Waxes	0	84	84	11	0	30	41
Petroleum Coke	1,301	27	1,328	2,467	607	816	3,890
Marketable	406	0	406	1,426	457	555	2,438
Catalyst	895	27	922	1,041	150	261	1,452
Asphalt and Road Oil	972	216	1,188	1,529	796	760	3,085
Still Gas	1,942	140	2,082	3,277	411	1,054	4,742
Miscellaneous Products	394	38	432	322	44	42	408
Fuel Use	10	0	10	0	0	0	0
Nonfuel Use	384	38	422	322	44	42	408
Total	**46,826**	**3,525**	**50,351**	**71,390**	**11,129**	**22,912**	**105,431**
Processing Gain(-) or Loss(+)[a]	-2,084	-14	-2,098	-4,284	-688	-985	-5,957

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, January 1989 (Continued)
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	244	5,055	4,446	110	60	9,915	193	1,647	16,315
Ethane/Ethylene	-30	186	-2	0	0	154	0	36	338
Ethane	W	W	W	W	W	W	W	W	154
Ethylene	W	W	W	W	W	W	W	W	184
Propane/Propylene	471	3,925	2,151	92	55	6,694	214	1,261	12,617
Propane	W	W	W	W	W	W	W	W	11,067
Propylene	W	W	W	W	W	W	W	W	1,550
Normal Butane/Butylene	-325	803	2,268	17	4	2,767	-23	163	2,824
Normal Butane	W	W	W	W	W	W	W	W	2,463
Butylene	W	W	W	W	W	W	W	W	361
Isobutane	128	141	29	1	1	300	2	187	536
Finished Motor Gasoline	9,592	44,691	36,906	1,946	1,164	94,299	7,362	36,396	214,990
Leaded	2,230	4,709	5,523	440	372	13,274	2,390	7,521	31,717
Unleaded	7,362	39,982	31,383	1,506	792	81,025	4,972	28,875	183,273
Finished Aviation Gasoline	90	163	48	0	0	301	2	146	589
Jet Fuel	2,188	9,764	11,430	268	225	23,875	1,260	12,504	46,586
Naphtha-Type	850	1,041	638	195	181	2,905	342	1,555	5,908
Kerosene-Type	1,338	8,723	10,792	73	44	20,970	918	10,949	40,678
Kerosene	25	834	826	22	0	1,707	17	142	3,401
Distillate Fuel Oil	3,600	18,856	16,416	1,710	437	41,019	3,423	13,190	92,154
Residual Fuel Oil	380	5,479	4,030	305	8	10,202	386	10,967	29,399
Less than 0.31 percent sulfur	143	0	677	69	5	894	63	751	2,793
0.31 to 1.00 percent sulfur	136	528	393	188	3	1,248	41	1,380	6,459
Greater than 1.00 percent sulfur	101	4,951	2,960	48	0	8,060	282	8,836	20,147
Naphtha for Petrochemical Feedstock Use	154	2,197	294	28	1	2,674	16	120	4,003
Other Oils for Petrochemical Feedstock Use	133	3,498	1,197	0	0	4,828	17	349	5,959
Special Naphthas	86	1,114	61	110	0	1,371	-2	77	1,986
Lubricants	23	2,030	702	390	0	3,145	36	651	5,355
Naphthenic	23	343	0	257	0	623	0	271	1,059
Paraffinic	0	1,687	702	133	0	2,522	36	380	4,296
Waxes	12	178	84	51	0	325	24	81	555
Petroleum Coke	335	3,284	3,803	168	19	7,609	353	4,344	17,524
Marketable	46	1,736	2,949	105	0	4,836	171	3,300	11,151
Catalyst	289	1,548	854	63	19	2,773	182	1,044	6,373
Asphalt and Road Oil	340	586	662	675	70	2,333	567	1,240	8,413
Still Gas	702	4,804	3,846	210	60	9,622	564	4,260	21,270
Miscellaneous Products	25	836	558	0	0	1,419	91	113	2,463
Fuel Use	7	0	38	0	0	45	19	0	74
Nonfuel Use	18	836	520	0	0	1,374	72	113	2,389
Total	**17,929**	**103,369**	**85,309**	**5,993**	**2,044**	**214,644**	**14,309**	**86,227**	**470,962**
Processing Gain(-) or Loss(+)[a]	-358	-4,981	-3,942	-69	-47	-9,397	-412	-4,678	-22,542

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[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, January 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**12,716**	**865**	**13,581**	**8,219**	**1,660**	**2,136**	**12,015**
Petroleum Products	**43,569**	**3,087**	**46,656**	**38,206**	**8,150**	**15,298**	**61,654**
Pentanes Plus	19	0	19	64	65	217	346
Liquefied Petroleum Gases	1,122	8	1,130	1,959	204	527	2,690
Ethane/Ethylene	12	0	12	1	0	0	1
Propane/Propylene	886	0	886	1,185	29	134	1,348
Normal Butane/Butylene	158	8	166	592	108	286	986
Isobutane	66	0	66	181	67	107	355
Other Hydrocarbons and Alcohol	0	0	0	160	2	38	200
Unfinished Oils	11,711	708	12,419	9,865	534	4,404	14,803
Naphthas and Lighter	3,553	174	3,727	2,504	130	1,095	3,729
Kerosene and Light Gas Oils	2,709	92	2,801	1,541	122	233	1,896
Heavy Gas Oils	4,474	303	4,777	3,295	194	1,499	4,988
Residuum	975	139	1,114	2,525	88	1,577	4,190
Motor Gasoline Blending Components	4,852	120	4,972	5,469	649	1,674	7,792
Aviation Gasoline Blending Components	0	0	0	70	0	46	116
Finished Motor Gasoline	10,114	531	10,645	6,726	1,760	2,704	11,190
Leaded	1,025	183	1,208	1,077	579	967	2,623
Unleaded	9,089	348	9,437	5,649	1,181	1,737	8,567
Finished Aviation Gasoline	22	0	22	135	27	11	173
Jet Fuel	2,129	6	2,135	1,781	280	583	2,644
Naphtha-Type	313	0	313	281	33	153	467
Kerosene-Type	1,816	6	1,822	1,500	247	430	2,177
Kerosene	316	69	385	513	65	186	764
Distillate Fuel Oil	6,417	359	6,776	4,783	1,145	2,404	8,332
Residual Fuel Oil	2,724	83	2,807	2,075	257	147	2,479
Less than 0.31 percent sulfur	467	42	509	19	0	0	19
0.31 to 1.00 percent sulfur	1,355	41	1,396	439	0	61	500
Greater than 1.00 percent sulfur	902	0	902	1,617	257	86	1,960
Naphtha for Petrochemical Feedstock Use	368	0	368	330	0	100	430
Other Oils for Petrochemical Feedstock Use	3	0	3	0	0	0	0
Special Naphthas	364	45	409	188	0	95	283
Lubricants	368	796	1,164	1,013	0	463	1,476
Waxes	0	85	85	87	0	19	106
Petroleum Coke (Marketable)	991	0	991	305	1,273	189	1,767
Asphalt and Road Oil	1,799	252	2,051	2,516	1,868	1,476	5,860
Miscellaneous Products	250	25	275	167	21	15	203
Total Stocks, All Oils	**56,285**	**3,952**	**60,237**	**46,425**	**9,810**	**17,434**	**73,669**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, January 1989 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**1,158**	**28,026**	**16,453**	**1,754**	**293**	**47,684**	**1,863**	**22,120**	**97,263**
Petroleum Products	**9,844**	**78,440**	**47,961**	**5,164**	**1,299**	**142,708**	**13,054**	**66,555**	**330,627**
Pentanes Plus	198	109	217	11	18	553	2	28	948
Liquefied Petroleum Gases	1,164	3,688	2,842	24	28	7,746	341	702	12,609
Ethane/Ethylene	64	749	0	0	0	813	0	0	826
Propane/Propylene	483	1,421	1,608	5	3	3,520	87	110	5,951
Normal Butane/Butylene	342	627	1,065	3	18	2,055	163	389	3,759
Isobutane	275	891	169	16	7	1,358	91	203	2,073
Other Hydrocarbons and Alcohol	0	158	67	0	8	233	32	28	493
Unfinished Oils	2,160	28,927	17,160	750	179	49,176	1,944	24,048	102,390
Naphthas and Lighter	693	8,439	4,123	176	40	13,471	453	4,614	25,994
Kerosene and Light Gas Oils	362	6,671	2,537	98	1	9,669	382	3,333	18,081
Heavy Gas Oils	605	8,909	6,575	426	138	16,653	764	12,493	39,675
Residuum	500	4,908	3,925	50	0	9,383	345	3,608	18,640
Motor Gasoline Blending Components	1,459	8,442	5,993	127	244	16,265	2,487	9,196	40,712
Aviation Gasoline Blending Components	0	21	91	0	0	112	0	10	238
Finished Motor Gasoline	1,914	11,241	5,363	931	201	19,650	2,374	10,096	53,955
Leaded	601	1,581	853	199	96	3,330	1,082	2,568	10,811
Unleaded	1,313	9,660	4,510	732	105	16,320	1,292	7,528	43,144
Finished Aviation Gasoline	84	273	137	0	0	494	29	274	992
Jet Fuel	626	3,795	3,111	149	194	7,875	543	4,832	18,029
Naphtha-Type	216	569	568	111	167	1,631	256	929	3,596
Kerosene-Type	410	3,226	2,543	38	27	6,244	287	3,903	14,433
Kerosene	49	716	324	60	0	1,149	24	150	2,472
Distillate Fuel Oil	797	7,519	4,541	896	143	13,896	1,532	5,170	35,706
Residual Fuel Oil	204	3,799	2,594	233	5	6,835	679	6,592	19,392
Less than 0.31 percent sulfur	73	4	861	6	3	947	103	563	2,141
0.31 to 1.00 percent sulfur	17	437	165	184	2	805	269	778	3,748
Greater than 1.00 percent sulfur	114	3,358	1,568	43	0	5,083	307	5,251	13,503
Naphtha for Petrochemical Feedstock Use	56	985	268	13	8	1,330	23	101	2,252
Other Oils for Petrochemical Feedstock Use	75	886	381	0	0	1,342	4	125	1,474
Special Naphthas	70	1,243	32	130	0	1,475	4	150	2,321
Lubricants	21	4,035	1,418	565	0	6,039	83	1,030	9,792
Waxes	74	205	179	16	0	474	75	105	845
Petroleum Coke (Marketable)	15	890	2,202	261	0	3,368	22	1,793	7,941
Asphalt and Road Oil	837	1,071	795	998	271	3,972	2,796	1,995	16,674
Miscellaneous Products	41	437	246	0	0	724	60	130	1,392
Total Stocks, All Oils	**11,002**	**106,466**	**64,414**	**6,918**	**1,592**	**190,392**	**14,917**	**88,675**	**427,890**

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] January 1989

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	4.1	0.9	3.9	3.4	2.7	1.5	2.9
Finished Motor Gasoline[b]	43.9	37.0	43.4	53.1	51.3	51.6	52.6
Finished Aviation Gasoline[c]	0.0	0.0	0.0	0.1	0.4	-0.1	0.1
Naphtha-Type Jet Fuel	1.3	0.0	1.2	0.4	0.2	1.3	0.6
Kerosene-Type Jet Fuel	5.4	0.0	5.0	5.7	5.5	6.9	5.9
Kerosene	1.0	3.9	1.3	1.6	0.7	-0.6	1.0
Distillate Fuel Oil	25.9	30.0	26.2	22.7	25.8	26.5	23.8
Residual Fuel Oil	11.0	3.9	10.5	3.9	1.7	1.2	3.1
Naphtha for Petrochemical Feedstock Use	0.6	0.0	0.6	1.3	0.0	0.5	1.0
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.1	0.0	0.2	0.8
Special Naphthas	0.0	0.2	0.0	0.5	0.0	1.1	0.6
Lubricants	1.0	9.6	1.6	0.8	0.0	1.2	0.8
Waxes	0.0	2.5	0.2	0.0	0.0	0.2	0.0
Petroleum Coke	3.0	0.8	2.8	3.9	6.1	4.1	4.2
Asphalt and Road Oil	2.2	6.4	2.5	2.4	8.0	3.8	3.3
Still Gas	4.4	4.1	4.4	5.2	4.1	5.3	5.1
Miscellaneous Products	0.9	1.1	0.9	0.5	0.4	0.2	0.4
Processing Gain(-) or Loss(+)[d]	-4.7	-0.4	-4.4	-6.8	-6.9	-4.9	-6.4

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1.6	5.3	5.7	2.0	3.4	5.0	1.5	2.1	3.8
Finished Motor Gasoline[b]	49.0	44.1	42.9	28.0	52.2	43.6	50.0	43.0	45.6
Finished Aviation Gasoline[c]	0.6	0.2	0.1	0.0	0.0	0.2	0.0	0.2	0.1
Naphtha-Type Jet Fuel	5.4	1.1	0.8	3.5	10.4	1.5	2.6	2.0	1.4
Kerosene-Type Jet Fuel	8.5	9.1	13.9	1.3	2.5	10.7	7.0	13.8	9.5
Kerosene	0.2	0.9	1.1	0.4	0.0	0.9	0.1	0.2	0.8
Distillate Fuel Oil	23.0	19.6	21.1	30.9	25.1	20.8	26.2	16.7	21.5
Residual Fuel Oil	2.4	5.7	5.2	5.5	0.5	5.2	3.0	13.8	6.8
Naphtha for Petrochemical Feedstock Use	1.0	2.3	0.4	0.5	0.1	1.4	0.1	0.2	0.9
Other Oils for Petrochemical Feedstock Use	0.8	3.6	1.5	0.0	0.0	2.5	0.1	0.4	1.4
Special Naphthas	0.5	1.2	0.1	2.0	0.0	0.7	0.0	0.1	0.5
Lubricants	0.1	2.1	0.9	7.1	0.0	1.6	0.3	0.8	1.2
Waxes	0.1	0.2	0.1	0.9	0.0	0.2	0.2	0.1	0.1
Petroleum Coke	2.1	3.4	4.9	3.0	1.1	3.9	2.7	5.5	4.1
Asphalt and Road Oil	2.2	0.6	0.9	12.2	4.0	1.2	4.3	1.6	2.0
Still Gas	4.5	5.0	4.9	3.8	3.4	4.9	4.3	5.4	5.0
Miscellaneous Products	0.2	0.9	0.7	0.0	0.0	0.7	0.7	0.1	0.6
Processing Gain(-) or Loss(+)[d]	-2.3	-5.2	-5.1	-1.2	-2.7	-4.8	-3.1	-5.9	-5.3

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, January 1989
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**8,339**	**5,424**	**12,662**	**26,425**
Connecticut	0	200	0	200
Delaware	0	221	328	549
Florida	0	131	1,502	1,633
Georgia	186	0	277	463
Maine	0	380	1,154	1,534
Maryland	0	229	237	466
Massachusetts	0	1,376	2,022	3,398
New Jersey	1,415	920	2,259	4,594
New York	6,248	1,804	2,343	10,395
North Carolina	0	0	231	231
Pennsylvania	490	163	857	1,510
South Carolina	0	0	220	220
Vermont	0	0	8	8
Virginia	0	0	1,224	1,224
PAD District II	**131**	**0**	**89**	**220**
Michigan	131	0	38	169
North Dakota	0	0	51	51
PAD District III	**357**	**0**	**101**	**458**
Alabama	0	0	101	101
Louisiana	357	0	0	357
PAD District V	**81**	**0**	**0**	**81**
Hawaii	81	0	0	81
U.S. Total	**8,908**	**5,424**	**12,852**	**27,184**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, January 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**35,817**	**22,306**	**105,337**	**2,231**	**5,465**	**171,156**	**5,521**
Natural Gas Liquids	**1,727**	**4,412**	**696**	**455**	**177**	**7,467**	**241**
Pentanes Plus	211	35	1	82	0	329	11
Liquefied Petroleum Gases	1,516	4,377	695	373	177	7,138	230
Ethane/Ethylene	0	0	375	0	0	375	12
Propane/Propylene	1,264	3,202	1	183	113	4,763	154
Normal Butane/Butylene	249	1,059	153	184	21	1,666	54
Isobutane	3	116	166	6	43	334	11
Other Liquids	**4,337**	**0**	**7,239**	**0**	**55**	**11,631**	**375**
Unfinished Oils[a]	3,654	0	6,980	0	55	10,689	345
Naphthas and Lighter	249	0	2,030	0	0	2,279	74
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	3,016	0	2,369	0	55	5,440	175
Residuum	389	0	2,581	0	0	2,970	96
Motor Gasoline Blending Components	683	0	259	0	0	942	30
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**50,764**	**810**	**6,832**	**215**	**364**	**58,985**	**1,903**
Finished Motor Gasoline	10,344	84	237	59	109	10,833	349
Leaded	91	22	0	11	5	129	4
Unleaded	10,253	62	237	48	104	10,704	345
Finished Aviation Gasoline	0	0	0	0	1	1	(s)
Jet Fuel	2,090	81	384	0	87	2,642	85
Naphtha-Type	0	81	0	0	4	85	3
Kerosene-Type	2,090	0	384	0	83	2,557	82
Bonded Aircraft Fuel	1,013	0	384	0	62	1,459	47
Other	1,077	0	0	0	21	1,098	35
Kerosene	711	0	331	0	0	1,042	34
Distillate Fuel Oil	9,811	219	0	154	65	10,249	331
Bonded Ship Bunkers	124	0	0	0	0	124	4
Other	9,687	219	0	154	65	10,125	327
Residual Fuel Oil	26,425	220	458	0	81	27,184	877
Bonded Ship Bunkers	186	0	0	0	0	186	6
Other	26,239	220	458	0	81	26,998	871
Naphtha for Petrochemical Feedstock Use	268	25	3,132	0	0	3,425	110
Other Oils for Petrochemical Feedstock Use	0	0	2,061	0	0	2,061	66
Special Naphthas	6	130	175	0	8	319	10
Lubricants	348	28	0	0	0	376	12
Waxes	20	19	0	2	4	45	1
Petroleum Coke	22	0	27	0	6	55	2
Asphalt and Road Oil	664	0	27	0	3	694	22
Miscellaneous Products	55	4	0	0	0	59	2
Total	**92,645**	**27,528**	**120,104**	**2,901**	**6,061**	**249,239**	**8,040**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**35,817**	**22,306**	**105,337**	**2,231**	**5,465**	**171,156**	**5,521**
Natural Gas Liquids	**1,727**	**4,412**	**696**	**455**	**177**	**7,467**	**241**
Pentanes Plus	211	35	1	82	0	329	11
Liquefied Petroleum Gases	1,516	4,377	695	373	177	7,138	230
Ethane/Ethylene	0	0	375	0	0	375	12
Propane/Propylene	1,264	3,202	1	183	113	4,763	154
Normal Butane/Butylene	249	1,059	153	184	21	1,666	54
Isobutane	3	116	166	6	43	334	11
Other Liquids	**4,337**	**0**	**7,239**	**0**	**55**	**11,631**	**375**
Unfinished Oils[a]	3,654	0	6,980	0	55	10,689	345
Naphthas and Lighter	249	0	2,030	0	0	2,279	74
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	3,016	0	2,369	0	55	5,440	175
Residuum	389	0	2,581	0	0	2,970	96
Motor Gasoline Blending Components	683	0	259	0	0	942	30
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**50,764**	**810**	**6,832**	**215**	**364**	**58,985**	**1,903**
Finished Motor Gasoline	10,344	84	237	59	109	10,833	349
Leaded	91	22	0	11	5	129	4
Unleaded	10,253	62	237	48	104	10,704	345
Finished Aviation Gasoline	0	0	0	0	1	1	(s)
Jet Fuel	2,090	81	384	0	87	2,642	85
Naphtha-Type	0	81	0	0	4	85	3
Kerosene-Type	2,090	0	384	0	83	2,557	82
Bonded Aircraft Fuel	1,013	0	384	0	62	1,459	47
Other	1,077	0	0	0	21	1,098	35
Kerosene	711	0	331	0	0	1,042	34
Distillate Fuel Oil	9,811	219	0	154	65	10,249	331
Bonded Ship Bunkers	124	0	0	0	0	124	4
Other	9,687	219	0	154	65	10,125	327
Residual Fuel Oil	26,425	220	458	0	81	27,184	877
Bonded Ship Bunkers	186	0	0	0	0	186	6
Other	26,239	220	458	0	81	26,998	871
Naphtha for Petrochemical Feedstock Use	268	25	3,132	0	0	3,425	110
Other Oils for Petrochemical Feedstock Use	0	0	2,061	0	0	2,061	66
Special Naphthas	6	130	175	0	8	319	10
Lubricants	348	28	0	0	0	376	12
Waxes	20	19	0	2	4	45	1
Petroleum Coke	22	0	27	0	6	55	2
Asphalt and Road Oil	664	0	27	0	3	694	22
Miscellaneous Products	55	4	0	0	0	59	2
Total	**92,645**	**27,528**	**120,104**	**2,901**	**6,061**	**249,239**	**8,040**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**57,749**	**730**	**1,986**	**91**	**1,368**	**242**	**624**	**1,840**	**0**	**0**	**1,84**
Algeria	2,883	730	503	0	0	0	230	1,840	0	0	1,84
Iraq	10,681	0	0	0	0	0	0	0	0	0	0
Kuwait	996	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	41,370	0	1,483	91	1,368	242	394	0	0	0	0
United Arab Emirates	1,819	0	0	0	0	0	0	0	0	0	0
Other OPEC	**45,155**	**412**	**2,612**	**240**	**1,312**	**884**	**3,270**	**1,242**	**0**	**3,692**	**4,934**
Ecuador	1,426	0	0	0	0	0	0	0	0	181	181
Indonesia	6,018	0	0	0	0	0	0	429	0	101	530
Nigeria	23,140	0	0	0	0	0	0	0	0	0	0
Venezuela	14,571	412	2,612	240	1,312	884	3,270	813	0	3,410	4,223
Non OPEC	**68,252**	**5,996**	**6,091**	**611**	**8,153**	**1,516**	**6,355**	**5,826**	**5,424**	**9,160**	**20,410**
Angola	3,867	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	223	0	173	0	573	0	573
Australia	599	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	200	1,491	1,691
Belgium	0	0	301	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	1,331	0	620	605	302	0	907
Brunei	217	0	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	0	0	0	0	0	325	0	325
Canada	19,615	5,413	340	0	1,192	288	2,512	131	215	515	861
China, People's Republic of	1,191	0	0	0	0	0	0	0	0	0	0
Colombia	6,331	0	0	0	0	0	173	0	383	1,214	1,597
Congo	0	0	0	0	0	0	0	165	0	0	165
Denmark	0	0	0	0	0	0	0	0	321	0	321
Egypt	0	0	0	0	0	0	0	0	0	0	0
France	0	146	0	0	1,170	0	0	0	225	0	225
Germany, FR (W)	0	39	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	130	0	0	130
Greece	0	0	0	0	0	0	0	89	0	0	89
India	0	0	814	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Italy	0	0	156	0	306	0	0	0	0	0	0
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	2,142	0	0	0	0	0	0	0	0	0	0
Mexico	23,182	163	0	0	0	635	0	0	0	820	820
Netherlands	0	0	562	0	1,052	0	0	0	0	312	312
Netherlands Antilles	0	0	0	0	0	0	180	190	221	1,252	1,663
Norway	1,033	0	0	0	0	0	0	0	0	0	0
Oman	311	0	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	202	0	0	0	0	0	494	1,000	1,494
Puerto Rico	0	0	121	0	0	0	0	0	0	0	0
Romania	0	0	0	19	0	0	0	0	308	0	308
Singapore	0	0	253	0	0	0	0	622	0	0	622
Spain	0	0	1,041	0	1,533	0	166	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	163	0	163
Thailand	762	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,440	0	0	0	0	0	97	0	0	0	0
Turkey	0	81	0	0	0	0	0	0	0	0	0
United Kingdom	4,282	86	0	28	867	0	0	0	863	291	1,154
U.S.S.R.	0	0	359	0	0	0	244	0	0	0	0
Virgin Islands	0	0	1,940	564	479	581	2,190	3,793	360	2,084	6,237
Zaire	452	0	0	0	0	0	0	101	0	0	101
Other	1,828	62	2	0	0	12	0	0	250	0	250
Total	**171,156**	**7,138**	**10,689**	**942**	**10,833**	**2,642**	**10,249**	**8,908**	**5,424**	**12,852**	**27,184**

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,563**	**2,021**	**0**	**0**	**0**	**10,465**	**68,214**	**2,200**
Algeria	0	0	1,563	2,021	0	0	0	6,887	9,770	315
Iraq	0	0	0	0	0	0	0	0	10,681	345
Kuwait	0	0	0	0	0	0	0	0	996	32
Saudi Arabia	0	0	0	0	0	0	0	3,578	44,948	1,450
United Arab Emirates	0	0	0	0	0	0	0	0	1,819	59
Other OPEC	**0**	**0**	**349**	**0**	**0**	**518**	**0**	**14,531**	**59,686**	**1,925**
Ecuador	0	0	0	0	0	0	0	181	1,607	52
Indonesia	0	0	0	0	0	0	0	530	6,548	211
Nigeria	0	0	0	0	0	0	0	0	23,140	746
Venezuela	0	0	349	0	0	518	0	13,820	28,391	916
Non OPEC	**1,042**	**319**	**1,513**	**40**	**376**	**176**	**489**	**53,087**	**121,339**	**3,914**
Angola	0	0	0	0	0	0	0	0	3,867	125
Argentina	0	25	0	40	0	0	0	1,034	1,034	33
Australia	0	0	0	0	0	0	0	0	599	19
Bahama Islands	0	0	0	0	0	0	0	1,691	1,691	55
Belgium	0	0	0	0	0	0	0	301	301	10
Brazil	0	25	0	0	0	0	1	2,884	2,884	93
Brunei	0	0	0	0	0	0	0	0	217	7
Cameroon	0	0	0	0	0	0	0	325	325	10
Canada	97	269	44	0	65	5	146	11,232	30,847	995
China, People's Republic of	0	0	0	0	0	0	0	0	1,191	38
Colombia	0	0	0	0	0	0	0	1,770	8,101	261
Congo	0	0	0	0	0	0	0	165	165	5
Denmark	0	0	0	0	0	0	0	321	321	10
Egypt	0	0	0	0	0	0	1	1	1	(s)
France	0	0	0	0	0	0	0	1,541	1,541	50
Germany, FR (W)	0	0	0	0	0	0	2	41	41	1
Ghana	0	0	0	0	0	0	0	130	130	4
Greece	0	0	0	0	0	0	0	89	89	3
India	0	0	554	0	0	0	0	1,368	1,368	44
Ireland	0	0	0	0	0	0	0	221	221	7
Italy	0	0	132	0	0	0	0	594	594	19
Japan	0	0	7	0	0	0	50	63	63	2
Malaysia	0	0	0	0	0	0	0	0	2,142	69
Mexico	0	0	0	0	0	8	214	1,840	25,022	807
Netherlands	0	0	49	0	29	0	0	2,004	2,004	65
Netherlands Antilles	0	0	0	0	0	0	0	1,843	1,843	59
Norway	0	0	0	0	0	0	0	0	1,033	33
Oman	0	0	0	0	0	0	0	0	311	10
Panama	0	0	0	0	0	0	0	181	181	6
Peru	0	0	0	0	0	0	0	1,696	1,696	55
Puerto Rico	0	0	457	0	282	0	55	915	915	30
Romania	0	0	0	0	0	0	0	327	327	11
Singapore	0	0	0	0	0	0	0	875	875	28
Spain	0	0	222	0	0	163	0	3,125	3,125	101
Sweden	0	0	0	0	0	0	0	163	163	5
Thailand	0	0	0	0	0	0	0	0	762	25
Trinidad and Tobago	134	0	0	0	0	0	0	231	2,671	86
Turkey	0	0	0	0	0	0	0	81	81	3
United Kingdom	0	0	0	0	0	0	0	2,135	6,417	207
U.S.S.R.	0	0	0	0	0	0	0	603	603	19
Virgin Islands	811	0	48	0	0	0	0	12,850	12,850	415
Zaire	0	0	0	0	0	0	0	101	553	18
Other	0	0	0	0	0	0	20	346	2,174	70
Total	**1,042**	**319**	**3,425**	**2,061**	**376**	**694**	**489**	**78,083**	**249,239**	**8,040**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**7,822**	**730**	**136**	**91**	**1,368**	**242**	**624**	**1,840**	**0**	**0**	**1,840**
Algeria	0	730	136	0	0	0	230	1,840	0	0	1,840
Kuwait	464	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,358	0	0	91	1,368	242	394	0	0	0	0
Other OPEC	**15,796**	**300**	**0**	**0**	**1,075**	**868**	**3,270**	**885**	**0**	**3,692**	**4,577**
Ecuador	1,031	0	0	0	0	0	0	0	0	181	181
Indonesia	0	0	0	0	0	0	0	429	0	101	530
Nigeria	13,371	0	0	0	0	0	0	0	0	0	0
Venezuela	1,394	300	0	0	1,075	868	3,270	456	0	3,410	3,866
Non OPEC	**12,199**	**486**	**3,518**	**592**	**7,901**	**980**	**5,917**	**5,614**	**5,424**	**8,970**	**20,008**
Angola	2,844	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	223	0	173	0	573	0	573
Bahama Islands	0	0	0	0	0	0	0	0	200	1,491	1,691
Brazil	0	0	0	0	1,331	0	620	605	302	0	907
Cameroon	0	0	0	0	0	0	0	0	325	0	325
Canada	2,101	486	5	0	940	198	2,074	0	215	426	641
China, People's Republic of	750	0	0	0	0	0	0	0	0	0	0
Colombia	1,445	0	0	0	0	0	173	0	383	1,214	1,597
Congo	0	0	0	0	0	0	0	165	0	0	165
Denmark	0	0	0	0	0	0	0	0	321	0	321
Egypt	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	1,170	0	0	0	225	0	225
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	130	0	0	130
Greece	0	0	0	0	0	0	0	89	0	0	89
India	0	0	244	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Italy	0	0	0	0	306	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,051	0	0	0	0	189	0	0	0	719	719
Netherlands	0	0	346	0	1,052	0	0	0	0	312	312
Netherlands Antilles	0	0	0	0	0	0	180	190	221	1,252	1,663
Norway	1,033	0	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	0	494	1,000	1,494
Puerto Rico	0	0	121	0	0	0	0	0	0	0	0
Romania	0	0	0	0	0	0	0	0	308	0	308
Singapore	0	0	253	0	0	0	0	541	0	0	541
Spain	0	0	609	0	1,533	0	166	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	163	0	163
Trinidad and Tobago	430	0	0	0	0	0	97	0	0	0	0
United Kingdom	1,545	0	0	28	867	0	0	0	863	291	1,154
U.S.S.R.	0	0	0	0	0	0	244	0	0	0	0
Virgin Islands	0	0	1,940	564	479	581	2,190	3,793	360	2,084	6,237
Zaire	0	0	0	0	0	0	0	101	0	0	101
Other	0	0	0	0	0	12	0	0	250	0	250
Total	**35,817**	**1,516**	**3,654**	**683**	**10,344**	**2,090**	**9,811**	**8,339**	**5,424**	**12,662**	**26,425**

See footnotes at end of table.

Table 26. PAD District I -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,031**	**12,853**	**415**
Algeria	0	0	0	0	0	0	0	2,936	2,936	95
Kuwait	0	0	0	0	0	0	0	0	464	15
Saudi Arabia	0	0	0	0	0	0	0	2,095	9,453	305
Other OPEC	**0**	**0**	**0**	**0**	**0**	**499**	**0**	**10,589**	**26,385**	**851**
Ecuador	0	0	0	0	0	0	0	181	1,212	39
Indonesia	0	0	0	0	0	0	0	530	530	17
Nigeria	0	0	0	0	0	0	0	0	13,371	431
Venezuela	0	0	0	0	0	499	0	9,878	11,272	364
Non OPEC	**711**	**6**	**268**	**0**	**348**	**165**	**308**	**41,208**	**53,407**	**1,723**
Angola	0	0	0	0	0	0	0	0	2,844	92
Argentina	0	0	0	0	0	0	0	969	969	31
Bahama Islands	0	0	0	0	0	0	0	1,691	1,691	55
Brazil	0	0	0	0	0	0	1	2,859	2,859	92
Cameroon	0	0	0	0	0	0	0	325	325	10
Canada	97	6	19	0	37	2	4	4,509	6,610	213
China, People's Republic of	0	0	0	0	0	0	0	0	750	24
Colombia	0	0	0	0	0	0	0	1,770	3,215	104
Congo	0	0	0	0	0	0	0	165	165	5
Denmark	0	0	0	0	0	0	0	321	321	10
Egypt	0	0	0	0	0	0	1	1	1	(s)
France	0	0	0	0	0	0	0	1,395	1,395	45
Germany, FR (W)	0	0	0	0	0	0	2	2	2	(s)
Ghana	0	0	0	0	0	0	0	130	130	4
Greece	0	0	0	0	0	0	0	89	89	3
India	0	0	0	0	0	0	0	244	244	8
Ireland	0	0	0	0	0	0	0	221	221	7
Italy	0	0	0	0	0	0	0	306	306	10
Japan	0	0	0	0	0	0	23	23	23	1
Mexico	0	0	0	0	0	0	211	1,119	3,170	102
Netherlands	0	0	0	0	29	0	0	1,739	1,739	56
Netherlands Antilles	0	0	0	0	0	0	0	1,843	1,843	59
Norway	0	0	0	0	0	0	0	0	1,033	33
Panama	0	0	0	0	0	0	0	181	181	6
Peru	0	0	0	0	0	0	0	1,494	1,494	48
Puerto Rico	0	0	249	0	282	0	55	707	707	23
Romania	0	0	0	0	0	0	0	308	308	10
Singapore	0	0	0	0	0	0	0	794	794	26
Spain	0	0	0	0	0	163	0	2,471	2,471	80
Sweden	0	0	0	0	0	0	0	163	163	5
Trinidad and Tobago	134	0	0	0	0	0	0	231	661	21
United Kingdom	0	0	0	0	0	0	0	2,049	3,594	116
U.S.S.R.	0	0	0	0	0	0	0	244	244	8
Virgin Islands	480	0	0	0	0	0	0	12,471	12,471	402
Zaire	0	0	0	0	0	0	0	101	101	3
Other	0	0	0	0	0	0	11	273	273	9
Total	**711**	**6**	**268**	**0**	**348**	**664**	**308**	**56,828**	**92,645**	**2,989**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 27. PAD District II -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**5,969**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Iraq	1,450	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,519	0	0	0	0	0	0	0	0	0	0
Other OPEC	**1,873**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Nigeria	835	0	0	0	0	0	0	0	0	0	0
Venezuela	1,038	0	0	0	0	0	0	0	0	0	0
Non OPEC	**14,464**	**4,377**	**0**	**0**	**84**	**81**	**219**	**131**	**0**	**89**	**220**
Canada	14,464	4,377	0	0	84	81	219	131	0	89	220
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**22,306**	**4,377**	**0**	**0**	**84**	**81**	**219**	**131**	**0**	**89**	**220**

See footnotes at end of table.

Table 27. PAD District II -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,969**	**193**
Iraq	0	0	0	0	0	0	0	0	1,450	47
Saudi Arabia	0	0	0	0	0	0	0	0	4,519	146
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,873**	**60**
Nigeria	0	0	0	0	0	0	0	0	835	27
Venezuela	0	0	0	0	0	0	0	0	1,038	33
Non OPEC	**0**	**130**	**25**	**0**	**28**	**0**	**58**	**5,222**	**19,686**	**635**
Canada	0	130	25	0	28	0	49	5,213	19,677	635
Other	0	0	0	0	0	0	9	9	9	(s)
Total	**0**	**130**	**25**	**0**	**28**	**0**	**58**	**5,222**	**27,528**	**888**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**43,958**	**0**	**1,850**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	2,883	0	367	0	0	0	0	0	0	0	0
Iraq	9,231	0	0	0	0	0	0	0	0	0	0
Kuwait	532	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	29,493	0	1,483	0	0	0	0	0	0	0	0
United Arab Emirates	1,819	0	0	0	0	0	0	0	0	0	0
Other OPEC	**24,917**	**112**	**2,612**	**240**	**237**	**0**	**0**	**357**	**0**	**0**	**357**
Ecuador	395	0	0	0	0	0	0	0	0	0	0
Indonesia	3,449	0	0	0	0	0	0	0	0	0	0
Nigeria	8,934	0	0	0	0	0	0	0	0	0	0
Venezuela	12,139	112	2,612	240	237	0	0	357	0	0	357
Non OPEC	**36,462**	**583**	**2,518**	**19**	**0**	**384**	**0**	**0**	**0**	**101**	**101**
Angola	1,023	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	301	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0	0
Canada	621	0	280	0	0	0	0	0	0	0	0
Colombia	4,886	0	0	0	0	0	0	0	0	0	0
France	0	146	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	39	0	0	0	0	0	0	0	0	0
India	0	0	570	0	0	0	0	0	0	0	0
Italy	0	0	156	0	0	0	0	0	0	0	0
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	1,463	0	0	0	0	0	0	0	0	0	0
Mexico	21,131	163	0	0	0	384	0	0	0	101	101
Netherlands	0	0	216	0	0	0	0	0	0	0	0
Oman	311	0	0	0	0	0	0	0	0	0	0
Peru	0	0	202	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	19	0	0	0	0	0	0	0
Spain	0	0	432	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,010	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	0	0	0	0	0	0	0	0	0
United Kingdom	2,737	86	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	359	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0
Zaire	452	0	0	0	0	0	0	0	0	0	0
Other	1,828	62	2	0	0	0	0	0	0	0	0
Total	**105,337**	**695**	**6,980**	**259**	**237**	**384**	**0**	**357**	**0**	**101**	**458**

See footnotes at end of table.

Table 28. PAD District III -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,563**	**2,021**	**0**	**0**	**0**	**5,434**	**49,392**	**1,593**
Algeria	0	0	1,563	2,021	0	0	0	3,951	6,834	220
Iraq	0	0	0	0	0	0	0	0	9,231	298
Kuwait	0	0	0	0	0	0	0	0	532	17
Saudi Arabia	0	0	0	0	0	0	0	1,483	30,976	999
United Arab Emirates	0	0	0	0	0	0	0	0	1,819	59
Other OPEC	**0**	**0**	**349**	**0**	**0**	**19**	**0**	**3,926**	**28,843**	**930**
Ecuador	0	0	0	0	0	0	0	0	395	13
Indonesia	0	0	0	0	0	0	0	0	3,449	111
Nigeria	0	0	0	0	0	0	0	0	8,934	288
Venezuela	0	0	349	0	0	19	0	3,926	16,065	518
Non OPEC	**331**	**175**	**1,220**	**40**	**0**	**8**	**28**	**5,407**	**41,869**	**1,351**
Angola	0	0	0	0	0	0	0	0	1,023	33
Argentina	0	25	0	40	0	0	0	65	65	2
Belgium	0	0	0	0	0	0	0	301	301	10
Brazil	0	25	0	0	0	0	0	25	25	1
Canada	0	125	0	0	0	0	0	405	1,026	33
Colombia	0	0	0	0	0	0	0	0	4,886	158
France	0	0	0	0	0	0	0	146	146	5
Germany, FR (W)	0	0	0	0	0	0	0	39	39	1
India	0	0	554	0	0	0	0	1,124	1,124	36
Italy	0	0	132	0	0	0	0	288	288	9
Japan	0	0	7	0	0	0	27	40	40	1
Malaysia	0	0	0	0	0	0	0	0	1,463	47
Mexico	0	0	0	0	0	8	1	657	21,788	703
Netherlands	0	0	49	0	0	0	0	265	265	9
Oman	0	0	0	0	0	0	0	0	311	10
Peru	0	0	0	0	0	0	0	202	202	7
Puerto Rico	0	0	208	0	0	0	0	208	208	7
Romania	0	0	0	0	0	0	0	19	19	1
Spain	0	0	222	0	0	0	0	654	654	21
Trinidad and Tobago	0	0	0	0	0	0	0	0	2,010	65
Turkey	0	0	0	0	0	0	0	81	81	3
United Kingdom	0	0	0	0	0	0	0	86	2,823	91
U.S.S.R.	0	0	0	0	0	0	0	359	359	12
Virgin Islands	331	0	48	0	0	0	0	379	379	12
Zaire	0	0	0	0	0	0	0	0	452	15
Other	0	0	0	0	0	0	0	64	1,892	61
Total	**331**	**175**	**3,132**	**2,061**	**0**	**27**	**28**	**14,767**	**120,104**	**3,874**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Tot
					PAD District IV						
Non OPEC	**2,231**	**373**	**0**	**0**	**59**	**0**	**154**	**0**	**0**	**0**	
Canada	2,231	373	0	0	59	0	154	0	0	0	
Total	**2,231**	**373**	**0**	**0**	**59**	**0**	**154**	**0**	**0**	**0**	
					PAD District V						
Other OPEC	**2,569**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	
Indonesia	2,569	0	0	0	0	0	0	0	0	0	
Venezuela	0	0	0	0	0	16	0	0	0	0	
Non OPEC	**2,896**	**177**	**55**	**0**	**109**	**71**	**65**	**81**	**0**	**0**	
Australia	599	0	0	0	0	0	0	0	0	0	
Brunei	217	0	0	0	0	0	0	0	0	0	
Canada	198	177	55	0	109	9	65	0	0	0	
China, People's Republic of	441	0	0	0	0	0	0	0	0	0	
Malaysia	679	0	0	0	0	0	0	0	0	0	
Mexico	0	0	0	0	0	62	0	0	0	0	
Singapore	0	0	0	0	0	0	0	81	0	0	
Thailand	762	0	0	0	0	0	0	0	0	0	
Total	**5,465**	**177**	**55**	**0**	**109**	**87**	**65**	**81**	**0**	**0**	

See footnotes at end of table.

Table 29. PAD Districts IV and V -- Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**84**	**670**	**2,901**	**94**
Canada	0	0	0	0	0	0	84	670	2,901	94
Total	**0**	**0**	**0**	**0**	**0**	**0**	**84**	**670**	**2,901**	**94**
					PAD District V					
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**2,585**	**83**
Indonesia	0	0	0	0	0	0	0	0	2,569	83
Venezuela	0	0	0	0	0	0	0	16	16	1
Non OPEC	**0**	**8**	**0**	**0**	**0**	**3**	**11**	**580**	**3,476**	**112**
Australia	0	0	0	0	0	0	0	0	599	19
Brunei	0	0	0	0	0	0	0	0	217	7
Canada	0	8	0	0	0	3	9	435	633	20
China, People's Republic of	0	0	0	0	0	0	0	0	441	14
Malaysia	0	0	0	0	0	0	0	0	679	22
Mexico	0	0	0	0	0	0	2	64	64	2
Singapore	0	0	0	0	0	0	0	81	81	3
Thailand	0	0	0	0	0	0	0	0	762	25
Total	**0**	**8**	**0**	**0**	**0**	**3**	**11**	**596**	**6,061**	**196**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**57,749**	**730**	**1,986**	**91**	**1,368**	**242**	**624**	**1,840**	**0**	**0**	**1,84**
Algeria	2,883	730	503	0	0	0	230	1,840	0	0	1,84
Iraq	10,681	0	0	0	0	0	0	0	0	0	
Kuwait	996	0	0	0	0	0	0	0	0	0	
Saudi Arabia	41,370	0	1,483	91	1,368	242	394	0	0	0	
United Arab Emirates	1,819	0	0	0	0	0	0	0	0	0	
Other OPEC	**45,155**	**412**	**2,612**	**240**	**1,312**	**884**	**3,270**	**1,242**	**0**	**3,692**	**4,93**
Ecuador	1,426	0	0	0	0	0	0	0	0	181	18
Indonesia	6,018	0	0	0	0	0	0	429	0	101	53
Nigeria	23,140	0	0	0	0	0	0	0	0	0	
Venezuela	14,571	412	2,612	240	1,312	884	3,270	813	0	3,410	4,22
Non OPEC	**68,252**	**5,996**	**6,091**	**611**	**8,153**	**1,516**	**6,355**	**5,826**	**5,424**	**9,160**	**20,41**
Angola	3,867	0	0	0	0	0	0	0	0	0	
Argentina	0	0	0	0	223	0	173	0	573	0	57
Australia	599	0	0	0	0	0	0	0	0	0	
Bahama Islands	0	0	0	0	0	0	0	0	200	1,491	1,69
Belgium	0	0	301	0	0	0	0	0	0	0	
Brazil	0	0	0	0	1,331	0	620	605	302	0	90
Brunei	217	0	0	0	0	0	0	0	0	0	
Cameroon	0	0	0	0	0	0	0	0	325	0	32
Canada	19,615	5,413	340	0	1,192	288	2,512	131	215	515	86
China, People's Republic of	1,191	0	0	0	0	0	0	0	0	0	
Colombia	6,331	0	0	0	0	0	173	0	383	1,214	1,59
Congo	0	0	0	0	0	0	0	165	0	0	16
Denmark	0	0	0	0	0	0	0	0	321	0	32
Egypt	0	0	0	0	0	0	0	0	0	0	
France	0	146	0	0	1,170	0	0	0	225	0	22
Germany, FR (W)	0	39	0	0	0	0	0	0	0	0	
Ghana	0	0	0	0	0	0	0	130	0	0	13
Greece	0	0	0	0	0	0	0	89	0	0	8
India	0	0	814	0	0	0	0	0	0	0	
Ireland	0	0	0	0	0	0	0	0	221	0	22
Italy	0	0	156	0	306	0	0	0	0	0	
Japan	0	6	0	0	0	0	0	0	0	0	
Malaysia	2,142	0	0	0	0	0	0	0	0	0	
Mexico	23,182	163	0	0	0	635	0	0	0	820	82
Netherlands	0	0	562	0	1,052	0	0	0	0	312	31
Netherlands Antilles	0	0	0	0	0	0	180	190	221	1,252	1,66
Norway	1,033	0	0	0	0	0	0	0	0	0	
Oman	311	0	0	0	0	0	0	0	0	0	
Panama	0	0	0	0	0	0	0	0	0	181	18
Peru	0	0	202	0	0	0	0	0	494	1,000	1,49
Puerto Rico	0	0	121	0	0	0	0	0	0	0	
Romania	0	0	0	19	0	0	0	0	308	0	30
Singapore	0	0	253	0	0	0	0	622	0	0	62
Spain	0	0	1,041	0	1,533	0	166	0	0	0	
Sweden	0	0	0	0	0	0	0	0	163	0	16
Thailand	762	0	0	0	0	0	0	0	0	0	
Trinidad and Tobago	2,440	0	0	0	0	0	97	0	0	0	
Turkey	0	81	0	0	0	0	0	0	0	0	
United Kingdom	4,282	86	0	28	867	0	0	0	863	291	1,15
U.S.S.R.	0	0	359	0	0	0	244	0	0	0	
Virgin Islands	0	0	1,940	564	479	581	2,190	3,793	360	2,084	6,23
Zaire	452	0	0	0	0	0	0	101	0	0	10
Other	1,828	62	2	0	0	12	0	0	250	0	25
Total	**171,156**	**7,138**	**10,689**	**942**	**10,833**	**2,642**	**10,249**	**8,908**	**5,424**	**12,852**	**27,18**

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,563**	**2,021**	**0**	**0**	**0**	**10,465**	**68,214**	**2,200**
Algeria	0	0	1,563	2,021	0	0	0	6,887	9,770	315
Iraq	0	0	0	0	0	0	0	0	10,681	345
Kuwait	0	0	0	0	0	0	0	0	996	32
Saudi Arabia	0	0	0	0	0	0	0	3,578	44,948	1,450
United Arab Emirates	0	0	0	0	0	0	0	0	1,819	59
Other OPEC	**0**	**0**	**349**	**0**	**0**	**518**	**0**	**14,531**	**59,686**	**1,925**
Ecuador	0	0	0	0	0	0	0	181	1,607	52
Indonesia	0	0	0	0	0	0	0	530	6,548	211
Nigeria	0	0	0	0	0	0	0	0	23,140	746
Venezuela	0	0	349	0	0	518	0	13,820	28,391	916
Non OPEC	**1,042**	**319**	**1,513**	**40**	**376**	**176**	**489**	**53,087**	**121,339**	**3,914**
Angola	0	0	0	0	0	0	0	0	3,867	125
Argentina	0	25	0	40	0	0	0	1,034	1,034	33
Australia	0	0	0	0	0	0	0	0	599	19
Bahama Islands	0	0	0	0	0	0	0	1,691	1,691	55
Belgium	0	0	0	0	0	0	0	301	301	10
Brazil	0	25	0	0	0	0	1	2,884	2,884	93
Brunei	0	0	0	0	0	0	0	0	217	7
Cameroon	0	0	0	0	0	0	0	325	325	10
Canada	97	269	44	0	65	5	146	11,232	30,847	995
China, People's Republic of	0	0	0	0	0	0	0	0	1,191	38
Colombia	0	0	0	0	0	0	0	1,770	8,101	261
Congo	0	0	0	0	0	0	0	165	165	5
Denmark	0	0	0	0	0	0	0	321	321	10
Egypt	0	0	0	0	0	0	1	1	1	(s)
France	0	0	0	0	0	0	0	1,541	1,541	50
Germany, FR (W)	0	0	0	0	0	0	2	41	41	1
Ghana	0	0	0	0	0	0	0	130	130	4
Greece	0	0	0	0	0	0	0	89	89	3
India	0	0	554	0	0	0	0	1,368	1,368	44
Ireland	0	0	0	0	0	0	0	221	221	7
Italy	0	0	132	0	0	0	0	594	594	19
Japan	0	0	7	0	0	0	50	63	63	2
Malaysia	0	0	0	0	0	0	0	0	2,142	69
Mexico	0	0	0	0	0	8	214	1,840	25,022	807
Netherlands	0	0	49	0	29	0	0	2,004	2,004	65
Netherlands Antilles	0	0	0	0	0	0	0	1,843	1,843	59
Norway	0	0	0	0	0	0	0	0	1,033	33
Oman	0	0	0	0	0	0	0	0	311	10
Panama	0	0	0	0	0	0	0	181	181	6
Peru	0	0	0	0	0	0	0	1,696	1,696	55
Puerto Rico	0	0	457	0	282	0	55	915	915	30
Romania	0	0	0	0	0	0	0	327	327	11
Singapore	0	0	0	0	0	0	0	875	875	28
Spain	0	0	222	0	0	163	0	3,125	3,125	101
Sweden	0	0	0	0	0	0	0	163	163	5
Thailand	0	0	0	0	0	0	0	0	762	25
Trinidad and Tobago	134	0	0	0	0	0	0	231	2,671	86
Turkey	0	0	0	0	0	0	0	81	81	3
United Kingdom	0	0	0	0	0	0	0	2,135	6,417	207
U.S.S.R.	0	0	0	0	0	0	0	603	603	19
Virgin Islands	811	0	48	0	0	0	0	12,850	12,850	415
Zaire	0	0	0	0	0	0	0	101	553	18
Other	0	0	0	0	0	0	20	346	2,174	70
Total	**1,042**	**319**	**3,425**	**2,061**	**376**	**694**	**489**	**78,083**	**249,239**	**8,040**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 31. PAD District I -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**7,822**	**730**	**136**	**91**	**1,368**	**242**	**624**	**1,840**	**0**	**0**	**1,84**
Algeria	0	730	136	0	0	0	230	1,840	0	0	1,84
Kuwait	464	0	0	0	0	0	0	0	0	0	
Saudi Arabia	7,358	0	0	91	1,368	242	394	0	0	0	
Other OPEC	**15,796**	**300**	**0**	**0**	**1,075**	**868**	**3,270**	**885**	**0**	**3,692**	**4,57**
Ecuador	1,031	0	0	0	0	0	0	0	0	181	18
Indonesia	0	0	0	0	0	0	0	429	0	101	53
Nigeria	13,371	0	0	0	0	0	0	0	0	0	
Venezuela	1,394	300	0	0	1,075	868	3,270	456	0	3,410	3,86
Non OPEC	**12,199**	**486**	**3,518**	**592**	**7,901**	**980**	**5,917**	**5,614**	**5,424**	**8,970**	**20,00**
Angola	2,844	0	0	0	0	0	0	0	0	0	
Argentina	0	0	0	0	223	0	173	0	573	0	57
Bahama Islands	0	0	0	0	0	0	0	0	200	1,491	1,69
Brazil	0	0	0	0	1,331	0	620	605	302	0	90
Cameroon	0	0	0	0	0	0	0	0	325	0	32
Canada	2,101	486	5	0	940	198	2,074	0	215	426	64
China, People's Republic of	750	0	0	0	0	0	0	0	0	0	
Colombia	1,445	0	0	0	0	0	173	0	383	1,214	1,59
Congo	0	0	0	0	0	0	0	165	0	0	16
Denmark	0	0	0	0	0	0	0	0	321	0	32
Egypt	0	0	0	0	0	0	0	0	0	0	
France	0	0	0	0	1,170	0	0	0	225	0	22
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	
Ghana	0	0	0	0	0	0	0	130	0	0	13
Greece	0	0	0	0	0	0	0	89	0	0	8
India	0	0	244	0	0	0	0	0	0	0	
Ireland	0	0	0	0	0	0	0	0	221	0	22
Italy	0	0	0	0	306	0	0	0	0	0	
Japan	0	0	0	0	0	0	0	0	0	0	
Mexico	2,051	0	0	0	0	189	0	0	0	719	71
Netherlands	0	0	346	0	1,052	0	0	0	0	312	31
Netherlands Antilles	0	0	0	0	0	0	180	190	221	1,252	1,66
Norway	1,033	0	0	0	0	0	0	0	0	0	
Panama	0	0	0	0	0	0	0	0	0	181	18
Peru	0	0	0	0	0	0	0	0	494	1,000	1,49
Puerto Rico	0	0	121	0	0	0	0	0	0	0	
Romania	0	0	0	0	0	0	0	0	308	0	30
Singapore	0	0	253	0	0	0	0	541	0	0	54
Spain	0	0	609	0	1,533	0	166	0	0	0	
Sweden	0	0	0	0	0	0	0	0	163	0	16
Trinidad and Tobago	430	0	0	0	0	0	97	0	0	0	
United Kingdom	1,545	0	0	28	867	0	0	0	863	291	1,15
U.S.S.R.	0	0	0	0	0	0	244	0	0	0	
Virgin Islands	0	0	1,940	564	479	581	2,190	3,793	360	2,084	6,23
Zaire	0	0	0	0	0	0	0	101	0	0	10
Other	0	0	0	0	0	12	0	0	250	0	25
Total	**35,817**	**1,516**	**3,654**	**683**	**10,344**	**2,090**	**9,811**	**8,339**	**5,424**	**12,662**	**26,42**

See footnotes at end of table.

Table 31. PAD District I -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,031**	**12,853**	415
Algeria	0	0	0	0	0	0	0	2,936	2,936	95
Kuwait	0	0	0	0	0	0	0	0	464	15
Saudi Arabia	0	0	0	0	0	0	0	2,095	9,453	305
Other OPEC	**0**	**0**	**0**	**0**	**0**	**499**	**0**	**10,589**	**26,385**	851
Ecuador	0	0	0	0	0	0	0	181	1,212	39
Indonesia	0	0	0	0	0	0	0	530	530	17
Nigeria	0	0	0	0	0	0	0	0	13,371	431
Venezuela	0	0	0	0	0	499	0	9,878	11,272	364
Non OPEC	711	6	**268**	**0**	348	165	308	41,208	53,407	1,723
Angola	0	0	0	0	0	0	0	0	2,844	92
Argentina	0	0	0	0	0	0	0	969	969	31
Bahama Islands	0	0	0	0	0	0	0	1,691	1,691	55
Brazil	0	0	0	0	0	0	1	2,859	2,859	92
Cameroon	0	0	0	0	0	0	0	325	325	10
Canada	97	6	19	0	37	2	4	4,509	6,610	213
China, People's Republic of	0	0	0	0	0	0	0	0	750	24
Colombia	0	0	0	0	0	0	0	1,770	3,215	104
Congo	0	0	0	0	0	0	0	165	165	5
Denmark	0	0	0	0	0	0	0	321	321	10
Egypt	0	0	0	0	0	0	1	1	1	(s)
France	0	0	0	0	0	0	0	1,395	1,395	45
Germany, FR (W)	0	0	0	0	0	0	2	2	2	(s)
Ghana	0	0	0	0	0	0	0	130	130	4
Greece	0	0	0	0	0	0	0	89	89	3
India	0	0	0	0	0	0	0	244	244	8
Ireland	0	0	0	0	0	0	0	221	221	7
Italy	0	0	0	0	0	0	0	306	306	10
Japan	0	0	0	0	0	0	23	23	23	1
Mexico	0	0	0	0	0	0	211	1,119	3,170	102
Netherlands	0	0	0	0	29	0	0	1,739	1,739	56
Netherlands Antilles	0	0	0	0	0	0	0	1,843	1,843	59
Norway	0	0	0	0	0	0	0	0	1,033	33
Panama	0	0	0	0	0	0	0	181	181	6
Peru	0	0	0	0	0	0	0	1,494	1,494	48
Puerto Rico	0	0	249	0	282	0	55	707	707	23
Romania	0	0	0	0	0	0	0	308	308	10
Singapore	0	0	0	0	0	0	0	794	794	26
Spain	0	0	0	0	0	163	0	2,471	2,471	80
Sweden	0	0	0	0	0	0	0	163	163	5
Trinidad and Tobago	134	0	0	0	0	0	0	231	661	21
United Kingdom	0	0	0	0	0	0	0	2,049	3,594	116
U.S.S.R.	0	0	0	0	0	0	0	244	244	8
Virgin Islands	480	0	0	0	0	0	0	12,471	12,471	402
Zaire	0	0	0	0	0	0	0	101	101	3
Other	0	0	0	0	0	0	11	273	273	9
Total	711	6	**268**	0	348	**664**	308	**56,828**	**92,645**	2,989

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 32. PAD District II -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**5,969**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
Iraq	1,450	0	0	0	0	0	0	0	0	0	
Saudi Arabia	4,519	0	0	0	0	0	0	0	0	0	
Other OPEC	**1,873**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
Nigeria	835	0	0	0	0	0	0	0	0	0	
Venezuela	1,038	0	0	0	0	0	0	0	0	0	
Non OPEC	**14,464**	**4,377**	**0**	**0**	**84**	**81**	**219**	**131**	**0**	**89**	**22**
Canada	14,464	4,377	0	0	84	81	219	131	0	89	22
Other	0	0	0	0	0	0	0	0	0	0	
Total	**22,306**	**4,377**	**0**	**0**	**84**	**81**	**219**	**131**	**0**	**89**	**22**

See footnotes at end of table.

Table 32. PAD District II -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,969**	**193**
Iraq	0	0	0	0	0	0	0	0	1,450	47
Saudi Arabia	0	0	0	0	0	0	0	0	4,519	146
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,873**	**60**
Nigeria	0	0	0	0	0	0	0	0	835	27
Venezuela	0	0	0	0	0	0	0	0	1,038	33
Non OPEC	**0**	**130**	**25**	**0**	**28**	**0**	**58**	**5,222**	**19,686**	**635**
Canada	0	130	25	0	28	0	49	5,213	19,677	635
Other	0	0	0	0	0	0	9	9	9	(s)
Total	**0**	**130**	**25**	**0**	**28**	**0**	**58**	**5,222**	**27,528**	**888**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 33. PAD District III -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**43,958**	**0**	**1,850**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	2,883	0	367	0	0	0	0	0	0	0	0
Iraq	9,231	0	0	0	0	0	0	0	0	0	0
Kuwait	532	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	29,493	0	1,483	0	0	0	0	0	0	0	0
United Arab Emirates	1,819	0	0	0	0	0	0	0	0	0	0
Other OPEC	**24,917**	**112**	**2,612**	**240**	**237**	**0**	**0**	**357**	**0**	**0**	**357**
Ecuador	395	0	0	0	0	0	0	0	0	0	0
Indonesia	3,449	0	0	0	0	0	0	0	0	0	0
Nigeria	8,934	0	0	0	0	0	0	0	0	0	0
Venezuela	12,139	112	2,612	240	237	0	0	357	0	0	357
Non OPEC	**36,462**	**583**	**2,518**	**19**	**0**	**384**	**0**	**0**	**0**	**101**	**101**
Angola	1,023	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	301	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0	0
Canada	621	0	280	0	0	0	0	0	0	0	0
Colombia	4,886	0	0	0	0	0	0	0	0	0	0
France	0	146	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	39	0	0	0	0	0	0	0	0	0
India	0	0	570	0	0	0	0	0	0	0	0
Italy	0	0	156	0	0	0	0	0	0	0	0
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	1,463	0	0	0	0	0	0	0	0	101	101
Mexico	21,131	163	0	0	0	384	0	0	0	0	0
Netherlands	0	0	216	0	0	0	0	0	0	0	0
Oman	311	0	0	0	0	0	0	0	0	0	0
Peru	0	0	202	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	19	0	0	0	0	0	0	0
Spain	0	0	432	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,010	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	0	0	0	0	0	0	0	0	0
United Kingdom	2,737	86	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	359	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0
Zaire	452	0	0	0	0	0	0	0	0	0	0
Other	1,828	62	2	0	0	0	0	0	0	0	0
Total	**105,337**	**695**	**6,980**	**259**	**237**	**384**	**0**	**357**	**0**	**101**	**458**

See footnotes at end of table.

Table 33. PAD District III -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,563**	**2,021**	**0**	**0**	**0**	**5,434**	**49,392**	**1,593**
Algeria	0	0	1,563	2,021	0	0	0	3,951	6,834	220
Iraq	0	0	0	0	0	0	0	0	9,231	298
Kuwait	0	0	0	0	0	0	0	0	532	17
Saudi Arabia	0	0	0	0	0	0	0	1,483	30,976	999
United Arab Emirates	0	0	0	0	0	0	0	0	1,819	59
Other OPEC	**0**	**0**	**349**	**0**	**0**	**19**	**0**	**3,926**	**28,843**	**930**
Ecuador	0	0	0	0	0	0	0	0	395	13
Indonesia	0	0	0	0	0	0	0	0	3,449	111
Nigeria	0	0	0	0	0	0	0	0	8,934	288
Venezuela	0	0	349	0	0	19	0	3,926	16,065	518
Non OPEC	**331**	**175**	**1,220**	**40**	**0**	**8**	**28**	**5,407**	**41,869**	**1,351**
Angola	0	0	0	0	0	0	0	0	1,023	33
Argentina	0	25	0	40	0	0	0	65	65	2
Belgium	0	0	0	0	0	0	0	301	301	10
Brazil	0	25	0	0	0	0	0	25	25	1
Canada	0	125	0	0	0	0	0	405	1,026	33
Colombia	0	0	0	0	0	0	0	0	4,886	158
France	0	0	0	0	0	0	0	146	146	5
Germany, FR (W)	0	0	0	0	0	0	0	39	39	1
India	0	0	554	0	0	0	0	1,124	1,124	36
Italy	0	0	132	0	0	0	0	288	288	9
Japan	0	0	7	0	0	0	27	40	40	1
Malaysia	0	0	0	0	0	0	0	0	1,463	47
Mexico	0	0	0	0	0	8	1	657	21,788	703
Netherlands	0	0	49	0	0	0	0	265	265	9
Oman	0	0	0	0	0	0	0	0	311	10
Peru	0	0	0	0	0	0	0	202	202	7
Puerto Rico	0	0	208	0	0	0	0	208	208	7
Romania	0	0	0	0	0	0	0	19	19	1
Spain	0	0	222	0	0	0	0	654	654	21
Trinidad and Tobago	0	0	0	0	0	0	0	0	2,010	65
Turkey	0	0	0	0	0	0	0	81	81	3
United Kingdom	0	0	0	0	0	0	0	86	2,823	91
U.S.S.R.	0	0	0	0	0	0	0	359	359	12
Virgin Islands	331	0	48	0	0	0	0	379	379	12
Zaire	0	0	0	0	0	0	0	0	452	15
Other	0	0	0	0	0	0	0	64	1,892	61
Total	**331**	**175**	**3,132**	**2,061**	**0**	**27**	**28**	**14,767**	**120,104**	**3,874**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District IV											
Non OPEC	**2,231**	**373**	**0**	**0**	**59**	**0**	**154**	**0**	**0**	**0**	**0**
Canada	2,231	373	0	0	59	0	154	0	0	0	0
Total	**2,231**	**373**	**0**	**0**	**59**	**0**	**154**	**0**	**0**	**0**	**0**
PAD District V											
Other OPEC	**2,569**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**
Indonesia	2,569	0	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	16	0	0	0	0	0
Non OPEC	**2,896**	**177**	**55**	**0**	**109**	**71**	**65**	**81**	**0**	**0**	**81**
Australia	599	0	0	0	0	0	0	0	0	0	0
Brunei	217	0	0	0	0	0	0	0	0	0	0
Canada	198	177	55	0	109	9	65	0	0	0	0
China, People's Republic of	441	0	0	0	0	0	0	0	0	0	0
Malaysia	679	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	62	0	81	0	0	81
Singapore	0	0	0	0	0	0	0	0	0	0	0
Thailand	762	0	0	0	0	0	0	0	0	0	0
Total	**5,465**	**177**	**55**	**0**	**109**	**87**	**65**	**81**	**0**	**0**	**81**

See footnotes at end of table.

Table 34. PAD Districts IV and V -- Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	0	0	0	0	0	0	84	670	2,901	94
Canada	0	0	0	0	0	0	84	670	2,901	94
Total	**0**	**0**	**0**	**0**	**0**	**0**	**84**	**670**	**2,901**	**94**
					PAD District V					
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**2,585**	**83**
Indonesia	0	0	0	0	0	0	0	0	2,569	83
Venezuela	0	0	0	0	0	0	0	16	16	1
Non OPEC	**0**	**8**	**0**	**0**	**0**	**3**	**11**	**580**	**3,476**	**112**
Australia	0	0	0	0	0	0	0	0	599	19
Brunei	0	0	0	0	0	0	0	0	217	7
Canada	0	8	0	0	0	3	9	435	633	20
China, People's Republic of	0	0	0	0	0	0	0	0	441	14
Malaysia	0	0	0	0	0	0	0	0	679	22
Mexico	0	0	0	0	0	0	2	64	64	2
Singapore	0	0	0	0	0	0	0	81	81	3
Thailand	0	0	0	0	0	0	0	0	762	25
Total	**0**	**8**	**0**	**0**	**0**	**3**	**11**	**596**	**6,061**	**196**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, January 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	(s)	460	0	0	3,761	4,221	136
Natural Gas Liquids	44	31	553	0	273	901	29
Pentanes Plus	32	11	150	0	131	324	10
Liquefied Petroleum Gases	12	20	403	0	142	577	19
Ethane/Ethylene	3	0	0	0	0	3	(s)
Propane/Propylene	5	12	271	0	140	428	14
Normal Butane/Butylene	4	8	133	0	2	146	5
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	352	285	8,260	6	9,541	18,444	595
Finished Motor Gasoline	2	7	583	0	434	1,026	33
Naphtha-Type Jet Fuel	(s)	0	19	1	0	20	1
Kerosene-Type Jet Fuel	0	1	890	0	1,406	2,297	74
Kerosene	3	1	28	0	(s)	31	1
Distillate Fuel Oil	10	3	1,203	0	2,195	3,410	110
Residual Fuel Oil	5	0	1,388	0	3,303	4,696	151
Naphtha for Petrochemical Feedstock Use	11	1	72	0	2	87	3
Other Oils for Petrochemical Feedstock Use	0	(s)	428	0	171	599	19
Special Naphthas	187	5	43	(s)	1	235	8
Lubricants	89	21	193	4	105	411	13
Waxes	4	2	40	0	7	53	2
Petroleum Coke	22	243	3,360	(s)	1,906	5,530	178
Asphalt	1	1	1	(s)	8	11	(s)
Miscellaneous Products	19	1	14	(s)	3	37	1
Total	396	776	8,813	6	13,575	23,566	760

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**(s)**	**460**	**0**	**0**	**3,761**	**4,221**	136
Natural Gas Liquids	**44**	**31**	**553**	**0**	**273**	**901**	**29**
Pentanes Plus	32	11	150	0	131	324	10
Liquefied Petroleum Gases	12	20	403	0	142	577	19
Ethane/Ethylene	3	0	0	0	0	3	(s)
Propane/Propylene	5	12	271	0	140	428	14
Normal Butane/Butylene	4	8	133	0	2	146	5
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**352**	**285**	**8,260**	**6**	**9,541**	**18,444**	**595**
Finished Motor Gasoline	2	7	583	0	434	1,026	33
Naphtha-Type Jet Fuel	(s)	0	19	1	0	20	1
Kerosene-Type Jet Fuel	0	1	890	0	1,406	2,297	74
Kerosene	3	1	28	0	(s)	31	1
Distillate Fuel Oil	10	3	1,203	0	2,195	3,410	110
Residual Fuel Oil	5	0	1,388	0	3,303	4,696	151
Naphtha for Petrochemical Feedstock Use	11	1	72	0	2	87	3
Other Oils for Petrochemical Feedstock Use	0	(s)	428	0	171	599	19
Special Naphthas	187	5	43	(s)	1	235	8
Lubricants	89	21	193	4	105	411	13
Waxes	4	2	40	0	7	53	2
Petroleum Coke	22	243	3,360	(s)	1,906	5,530	178
Asphalt	1	1	1	(s)	8	11	(s)
Miscellaneous Products	19	1	14	(s)	3	37	1
Total	**396**	**776**	**8,813**	**6**	**13,575**	**23,566**	**760**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, January 1989
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	(s)	0	0
Australia	0	3	(s)	0	0	0	1	0	6
Bahama Islands	0	0	(s)	69	33	0	669	136	0
Bahrain	0	(s)	0	0	0	0	0	0	0
Belgium & Luxembourg	0	18	65	0	0	0	4	0	0
Brazil	0	0	0	0	0	0	0	0	0
Canada	464	11	31	50	207	1	248	821	1
Chile	0	0	(s)	0	0	0	(s)	0	1
China, Taiwan	0	0	(s)	0	0	0	113	787	(s)
Colombia	0	0	0	0	0	0	0	0	0
Costa Rica	0	(s)	0	11	0	0	1	0	0
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	0	0	0
Ecuador	0	0	0	0	0	0	0	0	(s)
Egypt	0	14	0	0	0	0	0	0	0
El Salvador	0	0	0	37	0	0	0	0	0
Finland	0	3	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	32	0
Germany, FR (W)	0	1	0	(s)	0	0	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	1	0	0
Guatemala	0	0	32	270	0	27	292	0	(s)
Honduras	0	0	0	0	0	0	0	0	3
Hong Kong	0	0	(s)	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0
Indonesia	0	(s)	0	0	0	0	(s)	0	0
Israel	0	0	0	0	0	0	0	0	0
Italy	0	0	73	0	0	0	0	312	0
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	55	0	0	80	175	0
Japan	0	1	3	192	2,077	0	1,429	739	29
Korea, Republic of	0	0	101	0	0	0	190	14	21
Kuwait	0	0	0	0	0	0	(s)	0	0
Lebanon	0	1	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	(s)	0	0
Malaysia	0	0	0	0	0	0	0	0	0
Mexico	0	247	263	340	(s)	1	6	1,419	2
Netherlands	0	0	0	0	0	0	0	0	5
Netherlands Antilles	0	0	0	0	0	0	47	0	0
New Zealand	0	4	0	0	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	50	0
Peru	0	0	(s)	0	0	0	213	0	0
Philippines	0	0	0	0	0	0	0	0	0
Puerto Rico	390	2	6	0	0	2	3	3	10
Saudi Arabia	0	6	0	0	0	0	0	0	0
Singapore	0	(s)	0	0	0	0	109	208	1
South Africa	0	0	(s)	0	0	0	0	0	0
Spain	0	(s)	(s)	0	0	0	0	0	(s)
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	(s)	0	0
Switzerland	0	(s)	(s)	0	0	0	0	0	0
Thailand	0	(s)	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	3	(s)	1	0	0	1	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	5
Virgin Islands	3,367	0	0	0	0	0	(s)	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	8	1	1	0	(s)	4	0	(s)
Total	**4,221**	**324**	**577**	**1,026**	**2,317**	**31**	**3,410**	**4,696**	**87**

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, January 1989 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	1	(s)	0	0	0	2	(s)
Australia	0	0	4	(s)	166	0	(s)	181	6
Bahama Islands	0	0	3	0	0	(s)	0	910	29
Bahrain	0	0	(s)	0	0	0	(s)	(s)	(s)
Belgium & Luxembourg	0	0	22	(s)	515	(s)	0	624	20
Brazil	0	0	1	(s)	0	0	0	1	(s)
Canada	(s)	8	65	2	392	1	5	2,307	74
Chile	0	0	2	1	3	0	0	6	(s)
China, Taiwan	0	(s)	21	(s)	(s)	(s)	6	929	30
Colombia	0	0	8	1	0	0	1	10	(s)
Costa Rica	0	2	6	(s)	0	0	(s)	21	1
Denmark	0	(s)	(s)	(s)	247	0	0	247	8
Dominican Republic	0	0	2	(s)	0	0	(s)	2	(s)
Ecuador	0	(s)	(s)	(s)	0	(s)	(s)	1	(s)
Egypt	0	0	(s)	0	0	0	0	14	(s)
El Salvador	0	(s)	(s)	0	(s)	0	(s)	38	1
Finland	0	0	(s)	0	0	0	0	4	(s)
France	134	0	1	19	0	(s)	(s)	155	5
French Pacific Islands	0	0	(s)	0	0	0	0	32	1
Germany, FR (W)	0	(s)	6	(s)	62	3	1	74	2
Ghana	0	0	1	0	44	(s)	0	45	1
Greece	0	0	22	0	0	0	0	22	1
Guatemala	0	2	7	(s)	(s)	(s)	(s)	629	20
Honduras	0	1	1	(s)	0	0	(s)	5	(s)
Hong Kong	0	(s)	1	(s)	0	0	(s)	1	(s)
India	0	0	1	(s)	0	0	(s)	2	(s)
Indonesia	0	0	2	(s)	0	(s)	0	3	(s)
Israel	0	0	(s)	0	0	0	(s)	(s)	(s)
Italy	191	0	1	1	1,035	(s)	(s)	1,613	52
Ivory Coast	0	0	(s)	0	0	(s)	0	(s)	(s)
Jamaica	0	(s)	1	(s)	0	0	(s)	310	10
Japan	0	33	34	2	1,115	1	1	5,656	182
Korea, Republic of	84	(s)	2	1	49	(s)	2	465	15
Kuwait	0	(s)	1	0	0	0	(s)	1	(s)
Lebanon	0	0	(s)	0	0	0	0	1	(s)
Liberia	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	1	1	1	0	0	(s)	3	(s)
Mexico	0	2	76	18	69	1	3	2,447	79
Netherlands	103	177	17	1	668	1	10	982	32
Netherlands Antilles	0	0	(s)	0	0	0	(s)	48	2
New Zealand	0	0	1	(s)	110	0	(s)	116	4
Nigeria	0	0	1	0	0	0	1	2	(s)
Norway	0	0	(s)	0	44	0	(s)	44	1
Panama	0	2	29	0	0	1	(s)	82	3
Peru	0	(s)	1	(s)	0	0	(s)	215	7
Philippines	0	0	9	(s)	0	0	(s)	9	(s)
Puerto Rico	0	(s)	10	1	0	0	1	429	14
Saudi Arabia	0	(s)	3	(s)	0	0	(s)	9	(s)
Singapore	0	(s)	4	(s)	1	(s)	(s)	323	10
South Africa	0	(s)	1	(s)	38	(s)	(s)	39	1
Spain	0	0	7	(s)	616	0	(s)	625	20
Suriname	0	0	1	0	0	0	0	1	(s)
Sweden	0	0	1	0	0	(s)	(s)	1	(s)
Switzerland	0	5	(s)	0	0	0	(s)	6	(s)
Thailand	87	0	3	(s)	0	(s)	(s)	90	3
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	4	(s)	0	0	0	4	(s)
United Arab Emirates	0	0	(s)	0	60	0	(s)	61	2
United Kingdom	0	0	2	(s)	168	(s)	(s)	176	6
Uruguay	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	0	11	2	128	(s)	(s)	147	5
Virgin Islands	0	(s)	(s)	0	0	0	0	3,368	109
Yugoslavia	0	0	(s)	0	0	0	0	(s)	(s)
Other	0	(s)	14	0	(s)	1	(s)	29	1
Total	**599**	**235**	**411**	**53**	**5,530**	**11**	**37**	**23,566**	**760**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January 1989

(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	(s)	0	0
Australia	0	3	(s)	0	0	0	1	0	6
Bahama Islands	0	0	(s)	69	33	0	669	136	0
Bahrain	0	(s)	0	0	0	0	0	0	0
Belgium & Luxembourg	0	18	65	0	0	0	4	0	0
Brazil	0	0	0	0	0	0	0	0	0
Canada	464	11	31	50	207	1	248	821	1
Chile	0	0	(s)	0	0	0	(s)	0	1
China, Taiwan	0	0	(s)	0	0	0	113	787	(s)
Colombia	0	0	0	0	0	0	0	0	0
Costa Rica	0	(s)	0	11	0	0	1	0	0
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	0	0	0
Ecuador	0	0	0	0	0	0	0	0	(s)
Egypt	0	14	0	0	0	0	0	0	0
El Salvador	0	0	0	37	0	0	0	0	0
Finland	0	3	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	32	0
Germany, FR (W)	0	1	0	(s)	0	0	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	1	0	0
Guatemala	0	0	32	270	0	27	292	0	(s)
Honduras	0	0	0	0	0	0	0	0	3
Hong Kong	0	0	(s)	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0
Indonesia	0	(s)	0	0	0	0	(s)	0	0
Israel	0	0	0	0	0	0	0	0	0
Italy	0	0	73	0	0	0	0	312	0
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	55	0	0	80	175	0
Japan	0	1	3	192	2,077	0	1,429	739	29
Korea, Republic of	0	0	101	0	0	0	190	14	21
Kuwait	0	0	0	0	0	0	(s)	0	0
Lebanon	0	1	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	(s)	0	0
Malaysia	0	0	0	0	0	0	0	0	0
Mexico	0	247	263	340	(s)	1	6	1,419	2
Netherlands	0	0	0	0	0	0	0	0	5
Netherlands Antilles	0	0	0	0	0	0	47	0	0
New Zealand	0	4	0	0	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	50	0
Peru	0	0	(s)	0	0	0	213	0	0
Philippines	0	0	0	0	0	0	0	0	0
Puerto Rico	390	2	6	0	0	2	3	3	10
Saudi Arabia	0	6	0	0	0	0	0	0	0
Singapore	0	(s)	0	0	0	0	109	208	1
South Africa	0	0	(s)	0	0	0	0	0	0
Spain	0	(s)	(s)	0	0	0	0	0	(s)
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	(s)	0	0
Switzerland	0	(s)	(s)	0	0	0	0	0	0
Thailand	0	(s)	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	3	(s)	1	0	0	1	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	5
Virgin Islands	3,367	0	0	0	0	0	(s)	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	8	1	1	0	(s)	4	0	(s)
Total	**4,221**	**324**	**577**	**1,026**	**2,317**	**31**	**3,410**	**4,696**	**87**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January 1989 (Continued)

(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	1	(s)	0	0	0	2	(s)
Australia	0	0	4	(s)	166	0	(s)	181	6
Bahama Islands	0	0	3	0	0	(s)	0	910	29
Bahrain	0	0	(s)	0	0	0	(s)	(s)	(s)
Belgium & Luxembourg	0	0	22	(s)	515	(s)	0	624	20
Brazil	0	0	1	(s)	0	0	0	1	(s)
Canada	(s)	8	65	2	392	1	5	2,307	74
Chile	0	0	2	1	3	0	0	5	(s)
China, Taiwan	0	(s)	21	(s)	(s)	(s)	6	929	30
Colombia	0	0	8	1	0	0	1	10	(s)
Costa Rica	0	2	6	(s)	0	0	(s)	21	1
Denmark	0	(s)	(s)	(s)	247	0	0	247	8
Dominican Republic	0	0	2	(s)	0	0	(s)	2	(s)
Ecuador	0	(s)	(s)	(s)	0	(s)	(s)	1	(s)
Egypt	0	0	(s)	0	0	0	0	14	(s)
El Salvador	0	(s)	(s)	0	(s)	0	(s)	38	1
Finland	0	0	(s)	0	0	0	0	4	(s)
France	134	0	1	19	0	(s)	(s)	155	5
French Pacific Islands	0	0	(s)	0	0	0	0	32	1
Germany, FR (W)	0	(s)	6	(s)	62	3	1	74	2
Ghana	0	0	1	0	44	(s)	0	45	1
Greece	0	0	22	0	0	0	0	22	1
Guatemala	0	2	7	(s)	(s)	(s)	(s)	629	20
Honduras	0	1	1	(s)	0	0	(s)	5	(s)
Hong Kong	0	(s)	1	(s)	0	0	(s)	1	(s)
India	0	0	1	(s)	0	0	(s)	2	(s)
Indonesia	0	0	2	(s)	0	(s)	0	3	(s)
Israel	0	0	(s)	0	0	0	(s)	(s)	(s)
Italy	191	0	1	1	1,035	(s)	(s)	1,613	52
Ivory Coast	0	0	(s)	0	0	(s)	0	(s)	(s)
Jamaica	0	(s)	1	(s)	0	0	(s)	310	10
Japan	0	33	34	2	1,115	1	1	5,656	182
Korea, Republic of	84	(s)	2	1	49	(s)	2	465	15
Kuwait	0	(s)	1	0	0	0	(s)	1	(s)
Lebanon	0	0	(s)	0	0	0	0	1	(s)
Liberia	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	1	1	1	0	0	(s)	3	(s)
Mexico	0	2	76	18	69	1	3	2,447	79
Netherlands	103	177	17	1	668	1	10	982	32
Netherlands Antilles	0	0	(s)	0	0	0	(s)	48	2
New Zealand	0	0	1	(s)	110	0	(s)	116	4
Nigeria	0	0	1	0	0	0	1	2	(s)
Norway	0	0	(s)	0	44	0	(s)	44	1
Panama	0	2	29	0	0	1	(s)	82	3
Peru	0	(s)	1	(s)	0	0	(s)	215	7
Philippines	0	0	9	(s)	0	0	(s)	9	(s)
Puerto Rico	0	(s)	10	1	0	0	1	429	14
Saudi Arabia	0	(s)	3	(s)	0	0	(s)	9	(s)
Singapore	0	(s)	4	(s)	1	(s)	(s)	323	10
South Africa	0	(s)	1	(s)	38	(s)	(s)	39	1
Spain	0	0	7	(s)	616	0	(s)	625	20
Suriname	0	0	1	0	0	0	0	1	(s)
Sweden	0	0	1	0	0	(s)	(s)	1	(s)
Switzerland	0	5	(s)	0	0	0	(s)	6	(s)
Thailand	87	0	3	(s)	0	(s)	(s)	90	3
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	4	(s)	0	0	0	4	(s)
United Arab Emirates	0	0	(s)	0	60	0	(s)	61	2
United Kingdom	0	0	2	(s)	168	(s)	(s)	176	6
Uruguay	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	0	11	2	128	(s)	(s)	147	5
Virgin Islands	0	(s)	(s)	0	0	0	0	3,368	109
Yugoslavia	0	0	(s)	0	0	0	0	(s)	(s)
Other	0	(s)	14	0	(s)	1	(s)	29	1
Total	**599**	**235**	**411**	**53**	**5,530**	**11**	**37**	**23,566**	**760**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, January 1989
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,863**	**24**	**44**	**8**	**20**	**59**	**-2**	**(s)**	**182**	**335**	**2,198**
Algeria	93	24	0	0	7	59	0	0	132	222	315
Iraq	345	0	0	0	0	0	0	(s)	(s)	(s)	344
Kuwait	32	0	0	0	(s)	0	0	(s)	(s)	(s)	32
Saudi Arabia	1,335	0	44	8	13	0	0	(s)	51	115	1,450
United Arab Emirates	59	0	0	0	0	0	-2	(s)	(s)	-2	57
Other OPEC	**1,457**	**13**	**42**	**29**	**105**	**159**	**-4**	**(s)**	**120**	**464**	**1,920**
Ecuador	46	0	0	0	0	6	0	(s)	(s)	6	52
Indonesia	194	0	0	0	(s)	17	0	(s)	(s)	17	211
Nigeria	746	0	0	0	0	0	0	(s)	(s)	(s)	746
Venezuela	470	13	42	29	105	136	-4	(s)	120	441	911
Non OPEC	**2,066**	**175**	**230**	**-26**	**95**	**507**	**-171**	**(s)**	**286**	**1,096**	**3,161**
Angola	125	0	0	0	0	0	0	0	0	0	125
Argentina	0	(s)	7	0	6	18	0	(s)	2	33	33
Australia	19	(s)	0	0	(s)	0	-5	(s)	(s)	-6	13
Bahama Islands	0	(s)	-2	-1	-22	50	0	(s)	(s)	25	25
Belgium & Luxembourg	0	-2	0	0	(s)	0	-17	-1	9	-10	-10
Brazil	0	0	43	0	20	29	0	(s)	1	93	93
Cameroon	0	0	0	0	0	10	0	0	0	10	10
Canada	618	174	37	3	73	1	-12	(s)	28	303	921
China, People's Republic of	38	0	0	0	(s)	0	0	(s)	0	(s)	38
China, Taiwan	0	(s)	0	0	-4	-25	(s)	-1	(s)	-30	-30
Colombia	204	0	0	0	6	52	0	(s)	(s)	57	261
Congo	0	0	0	0	0	5	0	(s)	0	5	5
Egypt	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Finland	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
France	0	5	38	0	0	7	0	(s)	-5	45	45
Greece	0	0	0	0	(s)	3	0	-1	0	2	2
Guatemala	0	-1	-9	0	-9	0	(s)	(s)	-1	-20	-20
India	0	0	0	0	0	0	0	(s)	44	44	44
Italy	0	-2	10	0	0	-10	-33	(s)	3	-33	-33
Jamaica	0	0	-2	0	-3	-6	0	(s)	(s)	-10	-10
Japan	0	(s)	-6	-67	-46	-24	-34	-1	-2	-180	-180
Korea, Republic of	0	-3	0	0	-6	(s)	-2	(s)	-3	-15	-15
Malaysia	69	0	0	0	0	0	0	(s)	(s)	(s)	69
Mexico	748	-3	-11	20	(s)	-19	-2	-2	-2	-20	728
Netherlands	0	0	34	0	0	10	-22	(s)	10	33	33
Netherlands Antilles	0	0	0	0	4	54	0	(s)	(s)	58	58
Norway	33	0	0	0	0	0	-1	(s)	(s)	-1	32
Oman	10	0	0	0	0	0	0	0	0	0	10
Panama	0	0	0	0	0	4	0	-1	(s)	3	3
Peru	0	(s)	0	0	-7	48	0	(s)	7	48	48
Puerto Rico	-13	(s)	0	0	(s)	(s)	0	9	20	28	16
Romania	0	0	0	0	0	10	0	0	1	11	11
Singapore	0	0	0	0	-4	13	(s)	(s)	8	18	18
Spain	0	(s)	49	0	5	0	-20	(s)	46	81	81
Thailand	25	0	0	0	0	0	0	(s)	-3	-3	22
Trinidad and Tobago	79	0	0	0	3	0	0	(s)	4	7	86
United Kingdom	138	3	28	0	(s)	37	-5	(s)	1	63	201
U.S.S.R.	0	0	0	0	8	0	0	0	12	19	19
Virgin Islands	-109	0	15	19	71	201	0	(s)	108	414	306
Zaire	15	0	0	0	0	3	0	0	(s)	3	18
Other	66	6	-2	(s)	(s)	34	-16	-1	(s)	21	87
Total	**5,385**	**212**	**316**	**10**	**221**	**725**	**-177**	**-1**	**588**	**1,895**	**7,280**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January 1989

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,863**	**24**	**44**	**8**	**20**	**59**	**-2**	**(s)**	**182**	**335**	**2,198**
Algeria	93	24	0	0	7	59	0	0	132	222	315
Iraq	345	0	0	0	0	0	0	(s)	(s)	(s)	344
Kuwait	32	0	0	0	(s)	0	0	(s)	(s)	(s)	32
Saudi Arabia	1,335	0	44	8	13	0	0	(s)	51	115	1,450
United Arab Emirates	59	0	0	0	0	0	-2	(s)	(s)	-2	57
Other OPEC	**1,457**	**13**	**42**	**29**	**105**	**159**	**-4**	**(s)**	**120**	**464**	**1,920**
Ecuador	46	0	0	0	0	6	0	(s)	(s)	6	52
Indonesia	194	0	0	0	(s)	17	0	(s)	(s)	17	211
Nigeria	746	0	0	0	0	0	0	(s)	(s)	(s)	746
Venezuela	470	13	42	29	105	136	-4	(s)	120	441	911
Non OPEC	**2,066**	**175**	**230**	**-26**	**95**	**507**	**-171**	**(s)**	**286**	**1,096**	**3,161**
Angola	125	0	0	0	0	0	0	0	0	0	125
Argentina	0	(s)	7	0	6	18	0	(s)	2	33	33
Australia	19	(s)	0	0	(s)	0	-5	(s)	(s)	-6	13
Bahama Islands	0	(s)	-2	-1	-22	50	0	(s)	(s)	25	25
Belgium & Luxembourg	0	-2	0	0	(s)	0	-17	-1	9	-10	-10
Brazil	0	0	43	0	20	29	0	(s)	1	93	93
Cameroon	0	0	0	0	0	10	0	0	0	10	10
Canada	618	174	37	3	73	1	-12	(s)	28	303	921
China, People's Republic of	38	0	0	0	(s)	0	0	(s)	0	(s)	38
China, Taiwan	0	(s)	0	0	-4	-25	(s)	-1	(s)	-30	-30
Colombia	204	0	0	0	5	52	0	(s)	(s)	57	261
Congo	0	0	0	0	0	5	0	(s)	0	5	5
Egypt	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Finland	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
France	0	5	38	0	0	7	0	(s)	-5	45	45
Greece	0	0	0	0	(s)	3	0	-1	0	2	2
Guatemala	0	-1	-9	0	-9	0	(s)	(s)	-1	-20	-20
India	0	0	0	0	0	0	0	(s)	44	44	44
Italy	0	-2	10	0	0	-10	-33	(s)	3	-33	-33
Jamaica	0	0	-2	0	-3	-6	0	(s)	(s)	-10	-10
Japan	0	(s)	-6	-67	-46	-24	-34	-1	-2	-180	-180
Korea, Republic of	0	-3	0	0	-6	(s)	-2	(s)	-3	-15	-15
Malaysia	69	0	0	0	0	0	0	(s)	(s)	(s)	69
Mexico	748	-3	-11	20	(s)	-19	-2	-2	-2	-20	728
Netherlands	0	0	34	0	0	10	-22	(s)	10	33	33
Netherlands Antilles	0	0	0	0	4	54	0	(s)	(s)	58	58
Norway	33	0	0	0	0	0	-1	(s)	(s)	-1	32
Oman	10	0	0	0	0	0	0	0	0	0	10
Panama	0	0	0	0	0	4	0	-1	(s)	3	3
Peru	0	(s)	0	0	-7	48	0	(s)	7	48	48
Puerto Rico	-13	(s)	0	0	(s)	(s)	0	9	20	28	16
Romania	0	0	0	0	0	10	0	0	1	11	11
Singapore	0	0	0	0	-4	13	(s)	(s)	8	18	18
Spain	0	(s)	49	0	5	0	-20	(s)	46	81	81
Thailand	25	0	0	0	0	0	0	(s)	-3	-3	22
Trinidad and Tobago	79	0	0	0	3	0	0	(s)	4	7	86
United Kingdom	138	3	28	0	(s)	37	-5	(s)	1	63	201
U.S.S.R.	0	0	0	0	8	0	0	0	12	19	19
Virgin Islands	-109	0	15	19	71	201	0	(s)	108	414	306
Zaire	15	0	0	0	0	3	0	0	(s)	3	18
Other	66	6	-2	(s)	(s)	34	-16	-1	(s)	21	87
Total	**5,385**	**212**	**316**	**10**	**221**	**725**	**-177**	**-1**	**588**	**1,895**	**7,280**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, January 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	**14,809**	**69,449**	**720,367**	**12,319**	**77,866**	**894,810**
Refinery	13,581	12,015	47,684	1,863	22,120	97,263
Tank Farms and Pipelines	1,170	55,790	93,739	9,265	35,041	195,005
Leases	58	1,644	17,425	1,191	1,595	21,913
Strategic Petroleum Reserve[a]	0	0	561,519	0	0	561,519
Alaskan In Transit	0	0	0	0	19,110	19,110
Total Stocks, All Oils (excluding Crude Oil)	**178,613**	**176,532**	**253,322**	**19,057**	**97,183**	**724,707**
Refinery	46,656	61,654	142,708	13,054	66,555	330,627
Bulk Terminal	105,007	74,920	65,384	3,219	24,807	273,337
Pipeline	26,739	37,415	40,747	2,591	5,757	113,249
Natural Gas Processing Plant	211	2,543	4,483	193	64	7,494
Pentanes Plus	**60**	**2,179**	**3,478**	**143**	**53**	**5,913**
Refinery	19	346	553	2	28	948
Bulk Terminal	32	902	963	0	6	1,903
Pipeline	0	528	892	75	0	1,495
Natural Gas Processing Plant	9	403	1,070	66	19	1,567
Liquefied Petroleum Gases	**4,693**	**25,893**	**53,591**	**994**	**1,787**	**86,958**
Refinery	1,130	2,690	7,746	341	702	12,609
Bulk Terminal	1,926	14,199	35,763	92	1,040	53,020
Pipeline	1,435	6,864	6,669	434	0	15,402
Natural Gas Processing Plant	202	2,140	3,413	127	45	5,927
Ethane/Ethylene	**14**	**3,893**	**13,495**	**151**	**0**	**17,553**
Refinery	12	1	813	0	0	826
Bulk Terminal	2	2,125	9,633	0	0	11,760
Pipeline	0	1,293	2,519	148	0	3,960
Natural Gas Processing Plant	0	474	530	3	0	1,007
Propane/Propylene	**3,865**	**15,565**	**25,045**	**428**	**345**	**45,248**
Refinery	886	1,348	3,520	87	110	5,951
Bulk Terminal	1,507	9,146	17,445	92	206	28,396
Pipeline	1,345	3,843	2,988	165	0	8,341
Natural Gas Processing Plant	127	1,228	1,092	84	29	2,560
Normal Butane/Butylene	**740**	**4,299**	**10,254**	**275**	**1,057**	**16,625**
Refinery	166	986	2,055	163	389	3,759
Bulk Terminal	416	1,897	6,161	0	658	9,132
Pipeline	90	1,113	804	78	0	2,085
Natural Gas Processing Plant	68	303	1,234	34	10	1,649
Isobutane	**74**	**2,136**	**4,797**	**140**	**385**	**7,532**
Refinery	66	355	1,358	91	203	2,073
Bulk Terminal	1	1,031	2,524	0	176	3,732
Pipeline	0	615	358	43	0	1,016
Natural Gas Processing Plant	7	135	557	6	6	711
Other Hydrocarbons/Alcohol	**0**	**200**	**233**	**32**	**28**	**493**
Refinery	0	200	233	32	28	493
Unfinished Oils	**12,419**	**14,803**	**49,176**	**1,944**	**24,048**	**102,390**
Refinery						
Naphthas and Lighter	3,727	3,729	13,471	453	4,614	25,994
Kerosene and Light Gas Oils	2,801	1,896	9,669	382	3,333	18,081
Heavy Gas Oils	4,777	4,988	16,653	764	12,493	39,675
Residuum	1,114	4,190	9,383	345	3,608	18,640
Motor Gasoline Blending Components	**5,032**	**8,321**	**17,554**	**2,529**	**9,343**	**42,779**
Refinery	4,972	7,792	16,265	2,487	9,196	40,712
Bulk Terminal	60	415	1,208	42	17	1,742
Pipeline	0	114	81	0	130	325

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, January 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	**0**	**116**	**112**	**0**	**10**	**238**
Refinery	0	116	112	0	10	238
Finished Motor Gasoline	**63,039**	**60,712**	**49,994**	**5,625**	**26,400**	**205,770**
Refinery	10,645	11,190	19,650	2,374	10,096	53,955
Bulk Terminal	39,035	32,043	11,993	1,990	13,608	98,669
Pipeline	13,359	17,479	18,351	1,261	2,696	53,146
Finished Leaded Motor Gasoline	**8,490**	**14,348**	**9,159**	**2,309**	**7,230**	**41,536**
Refinery	1,208	2,623	3,330	1,082	2,568	10,811
Bulk Terminal	5,811	7,833	2,995	817	4,206	21,662
Pipeline	1,471	3,892	2,834	410	456	9,063
Finished Unleaded Motor Gasoline	**54,549**	**46,364**	**40,835**	**3,316**	**19,170**	**164,234**
Refinery	9,437	8,567	16,320	1,292	7,528	43,144
Bulk Terminal	33,224	24,210	8,998	1,173	9,402	77,007
Pipeline	11,888	13,587	15,517	851	2,240	44,083
Finished Aviation Gasoline	**327**	**540**	**560**	**37**	**532**	**1,996**
Refinery	22	173	494	29	274	992
Bulk Terminal	294	297	45	8	258	902
Pipeline	11	70	21	0	0	102
Naphtha-Type Jet Fuel	**987**	**905**	**2,339**	**375**	**2,018**	**6,624**
Refinery	313	467	1,631	256	929	3,596
Bulk Terminal	558	280	154	1	534	1,527
Pipeline	116	158	554	118	555	1,501
Kerosene-Type Jet Fuel	**9,277**	**8,046**	**13,475**	**690**	**6,375**	**37,863**
Refinery	1,822	2,177	6,244	287	3,903	14,433
Bulk Terminal	3,937	2,719	2,013	187	1,729	10,585
Pipeline	3,518	3,150	5,218	216	743	12,845
Kerosene	**3,338**	**1,870**	**1,881**	**51**	**204**	**7,344**
Refinery	385	764	1,149	24	150	2,472
Bulk Terminal	2,561	905	365	27	35	3,893
Pipeline	392	201	367	0	19	979
Distillate Fuel Oil	**46,323**	**32,959**	**27,398**	**2,828**	**10,782**	**120,290**
Refinery	6,776	8,332	13,896	1,532	5,170	35,706
Bulk Terminal	31,639	15,848	5,167	809	4,333	57,796
Pipeline	7,908	8,779	8,335	487	1,279	26,788
Residual Fuel Oil[b]	**21,346**	**3,452**	**12,368**	**679**	**9,121**	**46,966**
Refinery	2,807	2,479	6,835	679	6,592	19,392
Bulk Terminal	18,539	973	5,533	0	2,288	27,333
Pipeline	0	0	0	0	241	241
Less than 0.31% Sulfur	**5,560**	**228**	**963**	**103**	**627**	**7,481**
Refinery	509	19	947	103	563	2,141
Bulk Terminal	5,051	209	16	0	64	5,340
0.31 to 1.00% Sulfur	**7,636**	**748**	**2,777**	**269**	**876**	**12,306**
Refinery	1,396	500	805	269	778	3,748
Bulk Terminal	6,240	248	1,972	0	98	8,558
Greater than 1.00% Sulfur	**8,150**	**2,476**	**8,628**	**307**	**7,377**	**26,938**
Refinery	902	1,960	5,083	307	5,251	13,503
Bulk Terminal	7,248	516	3,545	0	2,126	13,435
Naphtha for Petrochemical Feedstock Use	**368**	**430**	**1,330**	**23**	**101**	**2,252**
Refinery	368	430	1,330	23	101	2,252

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, January 1989 (Continued)

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	**3**	**0**	**1,342**	**4**	**125**	**1,474**
Refinery	3	0	1,342	4	125	1,474
Special Naphthas	**964**	**670**	**1,502**	**4**	**165**	**3,305**
Refinery	409	283	1,475	4	150	2,321
Bulk Terminal	555	387	27	0	15	984
Lubricants	**3,261**	**2,419**	**6,772**	**83**	**1,738**	**14,273**
Refinery	1,164	1,476	6,039	83	1,030	9,792
Bulk Terminal	2,097	943	733	0	708	4,481
Waxes	**85**	**106**	**474**	**75**	**105**	**845**
Refinery	85	106	474	75	105	845
Petroleum Coke	**991**	**1,767**	**3,368**	**22**	**1,793**	**7,941**
Refinery	991	1,767	3,368	22	1,793	7,941
Asphalt and Road Oil	**5,194**	**10,674**	**4,691**	**2,858**	**2,208**	**25,625**
Refinery	2,051	5,860	3,972	2,796	1,995	16,674
Bulk Terminal	3,143	4,814	719	62	213	8,951
Miscellaneous Products	**906**	**470**	**1,684**	**61**	**247**	**3,368**
Refinery	275	203	724	60	130	1,392
Bulk Terminal	631	195	701	1	23	1,551
Pipeline	0	72	259	0	94	425
Total Stocks, All Oils	**193,422**	**245,981**	**973,689**	**31,376**	**175,049**	**1,619,517**

[a] Includes 38,395 thousand barrels of domestic crude oil.
[b] Sulfur content not available for stocks held by pipelines.
Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 42. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, January 1989
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I	**7,019**	**42,661**	**2,946**	**38,415**	**21,346**
Connecticut	350	1,625	227	2,782	112
Delaware, D.C., Maryland	245	1,984	236	2,956	1,690
Florida	1,060	4,888	214	2,140	1,116
Georgia	839	2,755	107	1,296	393
Maine, New Hampshire, Vermont	64	1,298	193	2,275	783
Massachusetts	123	2,421	116	1,743	1,212
New Jersey	951	9,648	72	7,462	8,854
New York	704	4,767	394	5,543	4,071
North Carolina	866	2,597	418	1,909	557
Pennsylvania	888	5,164	628	5,737	1,409
Rhode Island	77	945	W	1,470	W
South Carolina	323	1,335	162	868	W
Virginia	450	3,026	138	2,133	599
West Virginia	79	208	W	101	W
PAD District II	**10,456**	**32,777**	**1,669**	**24,180**	**3,452**
Illinois	2,021	6,374	232	4,369	1,435
Indiana	1,105	4,781	211	3,254	601
Iowa	487	1,392	W	1,278	W
Kansas, Nebraska	1,103	2,028	48	2,285	47
Kentucky	538	1,432	103	911	W
Michigan	753	3,771	183	2,384	241
Minnesota	815	1,880	W	1,708	225
Missouri	566	1,227	W	760	W
North Dakota, South Dakota	320	520	W	677	W
Ohio	759	4,073	575	2,596	231
Oklahoma	817	1,367	W	1,515	160
Tennessee	547	2,081	65	1,052	287
Wisconsin	625	1,851	W	1,391	23
PAD District III	**6,325**	**25,318**	**1,514**	**19,063**	**12,368**
Alabama	403	1,421	81	743	925
Arkansas	176	342	W	280	W
Louisiana	1,046	4,323	402	4,852	4,766
Mississippi	636	2,192	17	1,943	W
New Mexico	221	341	W	261	5
Texas	3,843	16,699	998	10,984	6,563
PAD District IV	**1,899**	**2,465**	**51**	**2,341**	**679**
Colorado	367	792	W	395	W
Idaho	185	271	W	223	W
Montana	756	521	W	651	105
Utah	199	369	W	480	145
Wyoming	392	512	W	592	W
PAD District V	**6,774**	**16,930**	**185**	**9,503**	**8,880**
Alaska	235	700	W	905	W
Arizona	214	479	W	176	W
California	3,638	11,216	78	5,270	5,422
Hawaii	127	450	W	526	W
Nevada	122	250	W	188	W
Oregon	794	1,329	W	798	186
Washington	1,644	2,506	W	1,640	957
U.S. Total	**32,473**	**120,151**	**6,365**	**93,502**	**46,725**

W = Withheld to avoid disclosure of individual company data.
Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, January 1989
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	**7**	**0**	**0**	**262**	**2,519**	**562**	**0**	**490**	**47,694**
Petroleum Products	**7,279**	**251**	**0**	**4,786**	**6,238**	**1,609**	**0**	**88,880**	**24,957**
Pentanes Plus	0	0	0	0	76	0	0	0	880
Liquefied Petroleum Gases	0	0	0	1,388	2,519	268	0	2,816	4,894
Unfinished Oils	0	0	0	0	124	0	0	140	472
Motor Gasoline Blending Components	10	55	0	123	0	0	0	86	45
Finished Motor Gasoline	5,025	0	0	2,139	1,960	687	0	47,602	11,638
Leaded	740	0	0	192	440	103	0	5,504	1,920
Unleaded	4,285	0	0	1,947	1,520	584	0	42,098	9,718
Finished Aviation Gasoline	8	0	0	0	0	21	0	234	72
Jet Fuel	401	0	0	208	228	474	0	11,471	3,559
Naphtha-Type Jet Fuel	0	0	0	0	90	0	0	246	0
Kerosene-Type Jet Fuel	401	0	0	208	138	474	0	11,225	3,559
Kerosene	97	0	0	86	152	0	0	1,291	0
Distillate Fuel Oil	1,701	0	0	632	471	159	0	23,442	2,835
Residual Fuel Oil	0	0	0	43	581	0	0	506	47
Petrochemical Feedstocks[a]	37	30	0	50	18	0	0	41	9
Special Naphthas	0	0	0	0	0	0	0	149	68
Lubricants	0	115	0	117	103	0	0	786	404
Waxes	0	0	0	0	0	0	0	16	0
Asphalt and Road Oil	0	35	0	0	0	0	0	235	34
Miscellaneous Products	0	16	0	0	6	0	0	65	0
Total	**7,286**	**251**	**0**	**5,048**	**8,757**	**2,171**	**0**	**89,370**	**72,651**

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	**0**	**0**	**4,649**	**2,009**	**0**	**1,114**	**0**	**14,854**	**0**
Petroleum Products	**0**	**1,920**	**1,308**	**1,314**	**1,492**	**0**	**0**	**0**	**0**
Pentanes Plus	0	0	84	96	0	0	0	0	0
Liquefied Petroleum Gases	0	0	504	1,218	0	0	0	0	0
Unfinished Oils	0	145	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,020	422	0	933	0	0	0	0
Leaded	0	266	157	0	219	0	0	0	0
Unleaded	0	754	265	0	714	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	363	24	0	203	0	0	0	0
Naphtha-Type Jet Fuel	0	234	22	0	70	0	0	0	0
Kerosene-Type Jet Fuel	0	129	2	0	133	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	334	274	0	356	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	58	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	**0**	**1,920**	**5,957**	**3,323**	**1,492**	**1,114**	**0**	**14,854**	**0**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, January 1989

(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	0	2,519	562	0	47,694
Petroleum Products	7,175	0	2,910	5,392	1,609	72,908	21,192
Pentanes Plus	0	0	0	76	0	0	880
Liquefied Petroleum Gases	0	0	1,388	2,519	268	2,530	4,869
Motor Gasoline Blending Components	0	0	123	0	0	86	0
Finished Motor Gasoline	4,986	0	1,235	1,940	687	39,738	10,034
Leaded	740	0	83	440	103	4,613	1,709
Unleaded	4,246	0	1,152	1,500	584	35,125	8,325
Finished Aviation Gasoline	8	0	0	0	21	35	62
Jet Fuel	401	0	116	228	474	8,619	3,181
Naphtha-Type Jet Fuel	0	0	0	90	0	98	0
Kerosene-Type Jet Fuel	401	0	116	138	474	8,521	3,181
Kerosene	97	0	0	152	0	1,226	0
Distillate Fuel Oil	1,683	0	48	471	159	20,674	2,166
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	6	0	0	0
Total	7,175	0	2,910	7,911	2,171	72,908	68,886

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	4,649	2,009	0	3,758	0
Petroleum Products	0	1,717	1,308	1,314	1,492	0	0
Pentanes Plus	0	0	84	96	0	0	0
Liquefied Petroleum Gases	0	0	504	1,218	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,020	422	0	933	0	0
Leaded	0	266	157	0	219	0	0
Unleaded	0	754	265	0	714	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	363	24	0	203	0	0
Naphtha-Type Jet Fuel	0	234	22	0	70	0	0
Kerosene-Type Jet Fuel	0	129	2	0	133	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	334	274	0	356	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,717	5,957	3,323	1,492	3,758	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, January 1989
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	7	0	0	262	0	0	490	0
Petroleum Products	104	251	0	1,876	846	0	15,972	474
Liquefied Petroleum Gases	0	0	0	0	0	0	286	0
Unfinished Oils	0	0	0	0	124	0	140	0
Motor Gasoline Blending Components	10	55	0	0	0	0	0	0
Finished Motor Gasoline	39	0	0	904	20	0	7,864	0
Leaded	0	0	0	109	0	0	891	0
Unleaded	39	0	0	795	20	0	6,973	0
Finished Aviation Gasoline	0	0	0	0	0	0	199	0
Jet Fuel	0	0	0	92	0	0	2,852	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	148	0
Kerosene-Type Jet Fuel	0	0	0	92	0	0	2,704	0
Kerosene	0	0	0	86	0	0	65	24
Distillate Fuel Oil	18	0	0	584	0	0	2,768	450
Residual Fuel Oil	0	0	0	43	581	0	506	0
Less than 0.31 percent sulfur	0	0	0	36	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	204	0
Greater than 1.00 percent sulfur	0	0	0	7	581	0	302	0
Petrochemical Feedstocks[a]	37	30	0	50	18	0	41	0
Special Naphthas	0	0	0	0	0	0	149	0
Lubricants	0	115	0	117	103	0	786	0
Waxes	0	0	0	0	0	0	16	0
Asphalt and Road Oil	0	35	0	0	0	0	235	0
Miscellaneous Products	0	16	0	0	0	0	65	0
Total	111	251	0	2,138	846	0	16,462	474

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	490	0	0	0	1,114	0	11,096
Petroleum Products	1,652	13,846	3,765	203	0	0	0
Liquefied Petroleum Gases	0	286	25	0	0	0	0
Unfinished Oils	41	99	472	145	0	0	0
Motor Gasoline Blending Components	0	0	45	0	0	0	0
Finished Motor Gasoline	0	7,864	1,604	0	0	0	0
Leaded	0	891	211	0	0	0	0
Unleaded	0	6,973	1,393	0	0	0	0
Finished Aviation Gasoline	121	78	10	0	0	0	0
Jet Fuel	452	2,400	378	0	0	0	0
Naphtha-Type Jet Fuel	0	148	0	0	0	0	0
Kerosene-Type Jet Fuel	452	2,252	378	0	0	0	0
Kerosene	41	0	0	0	0	0	0
Distillate Fuel Oil	611	1,707	669	0	0	0	0
Residual Fuel Oil	60	446	47	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	204	0	0	0	0	0
Greater than 1.00 percent sulfur	60	242	47	0	0	0	0
Petrochemical Feedstocks[a]	0	41	9	0	0	0	0
Special Naphthas	44	105	68	0	0	0	0
Lubricants	228	558	404	58	0	0	0
Waxes	7	9	0	0	0	0	0
Asphalt and Road Oil	0	235	34	0	0	0	0
Miscellaneous Products	47	18	0	0	0	0	0
Total	2,142	13,846	3,765	203	1,114	0	11,096

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[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, January 1989
(Thousand Barrels)

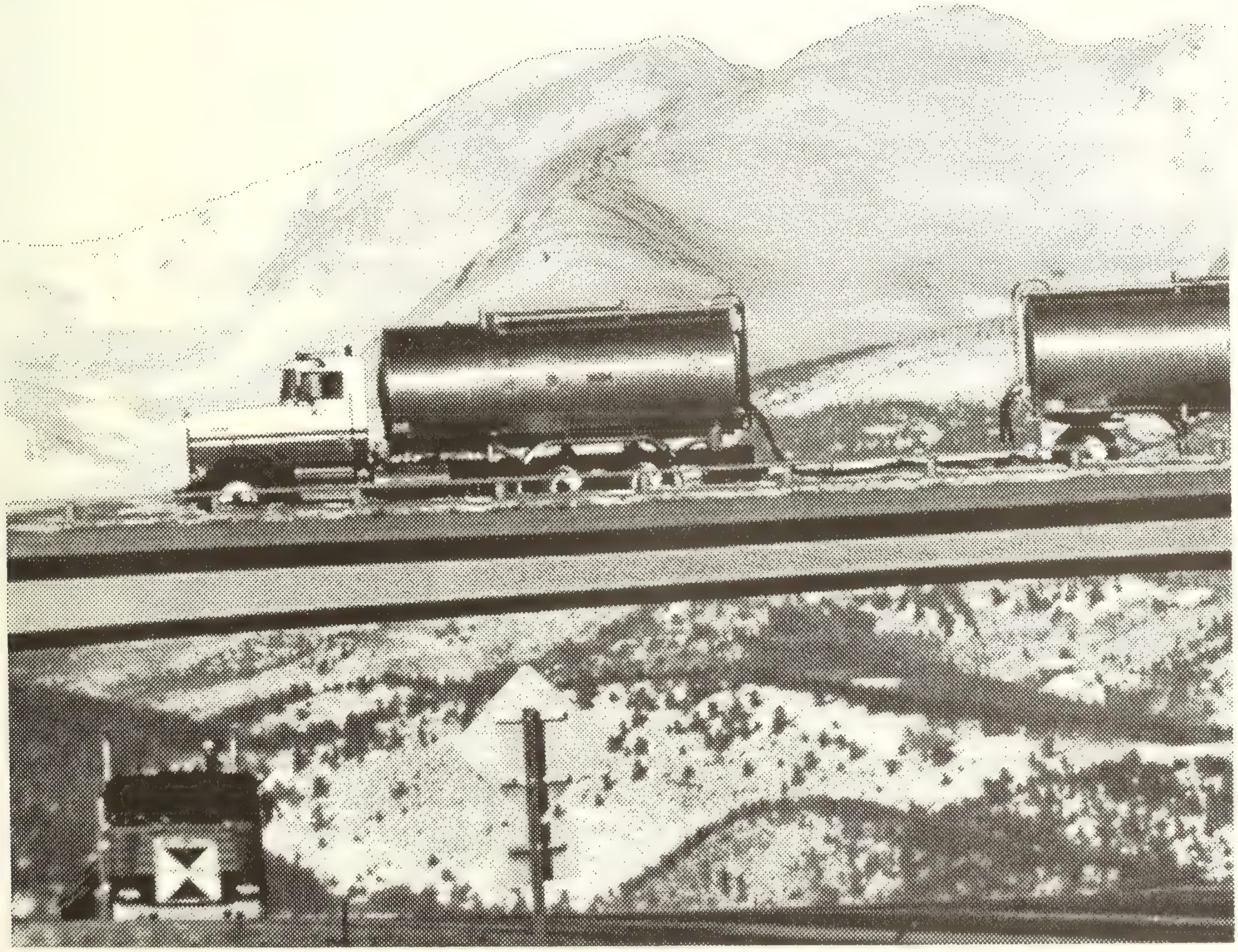
Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**1,866**	**7**	**1,859**	**52,350**	**3,343**	**49,007**
Petroleum Products	**93,666**	**7,530**	**86,136**	**33,544**	**12,633**	**20,911**
Pentanes Plus	0	0	0	964	76	888
Liquefied Petroleum Gases	4,204	0	4,204	5,398	4,175	1,223
Ethane/Ethylene	0	0	0	405	1,697	-1,292
Propane/Propylene	4,047	0	4,047	3,805	2,093	1,712
Normal Butane/Butylene	157	0	157	506	331	175
Isobutane	0	0	0	682	54	628
Unfinished Oils	140	0	140	472	124	348
Motor Gasoline Blending Components	209	65	144	55	123	-68
Finished Motor Gasoline	49,741	5,025	44,716	17,085	4,786	12,299
Leaded	5,696	740	4,956	2,817	735	2,082
Unleaded	44,045	4,285	39,760	14,268	4,051	10,217
Finished Aviation Gasoline	234	8	226	80	21	59
Jet Fuel	11,679	401	11,278	3,984	910	3,074
Naphtha-Type Jet Fuel	246	0	246	22	90	-68
Kerosene-Type Jet Fuel	11,433	401	11,032	3,962	820	3,142
Kerosene	1,377	97	1,280	97	238	-141
Distillate Fuel Oil	24,074	1,701	22,373	4,810	1,262	3,548
Residual Fuel Oil	549	0	549	47	624	-577
Petrochemical Feedstocks[a]	91	67	24	46	68	-22
Special Naphthas	149	0	149	68	0	68
Lubricants	903	115	788	404	220	184
Waxes	16	0	16	0	0	0
Asphalt and Road Oil	235	35	200	34	0	34
Miscellaneous Products	65	16	49	0	6	-6
Total	**95,532**	**7,537**	**87,995**	**85,894**	**15,976**	**69,918**

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**19,382**	**48,184**	**-28,802**	**562**	**6,658**	**-6,096**	**0**	**15,968**	**-15,968**
Petroleum Products	**7,803**	**115,757**	**-107,954**	**1,609**	**4,114**	**-2,505**	**3,412**	**0**	**3,412**
Pentanes Plus	172	880	-708	0	180	-180	0	0	0
Liquefied Petroleum Gases	3,737	7,710	-3,973	268	1,722	-1,454	0	0	0
Ethane/Ethylene	2,387	200	2,187	0	895	-895	0	0	0
Propane/Propylene	996	6,444	-5,448	190	501	-311	0	0	0
Normal Butane/Butylene	211	424	-213	78	197	-119	0	0	0
Isobutane	143	642	-499	0	129	-129	0	0	0
Unfinished Oils	124	757	-633	0	0	0	145	0	145
Motor Gasoline Blending Components	55	131	-76	0	0	0	0	0	0
Finished Motor Gasoline	1,960	60,260	-58,300	687	1,355	-668	1,953	0	1,953
Leaded	440	7,690	-7,250	103	376	-273	485	0	485
Unleaded	1,520	52,570	-51,050	584	979	-395	1,468	0	1,468
Finished Aviation Gasoline	0	306	-306	21	0	21	0	0	0
Jet Fuel	228	15,393	-15,165	474	227	247	566	0	566
Naphtha-Type Jet Fuel	90	480	-390	0	92	-92	304	0	304
Kerosene-Type Jet Fuel	138	14,913	-14,775	474	135	339	262	0	262
Kerosene	152	1,291	-1,139	0	0	0	0	0	0
Distillate Fuel Oil	471	26,611	-26,140	159	630	-471	690	0	690
Residual Fuel Oil	581	553	28	0	0	0	0	0	0
Petrochemical Feedstocks[a]	48	50	-2	0	0	0	0	0	0
Special Naphthas	0	217	-217	0	0	0	0	0	0
Lubricants	218	1,248	-1,030	0	0	0	58	0	58
Waxes	0	16	-16	0	0	0	0	0	0
Asphalt and Road Oil	35	269	-234	0	0	0	0	0	0
Miscellaneous Products	22	65	-43	0	0	0	0	0	0
Total	**27,185**	**163,941**	**-136,756**	**2,171**	**10,772**	**-8,601**	**3,412**	**15,968**	**-12,556**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

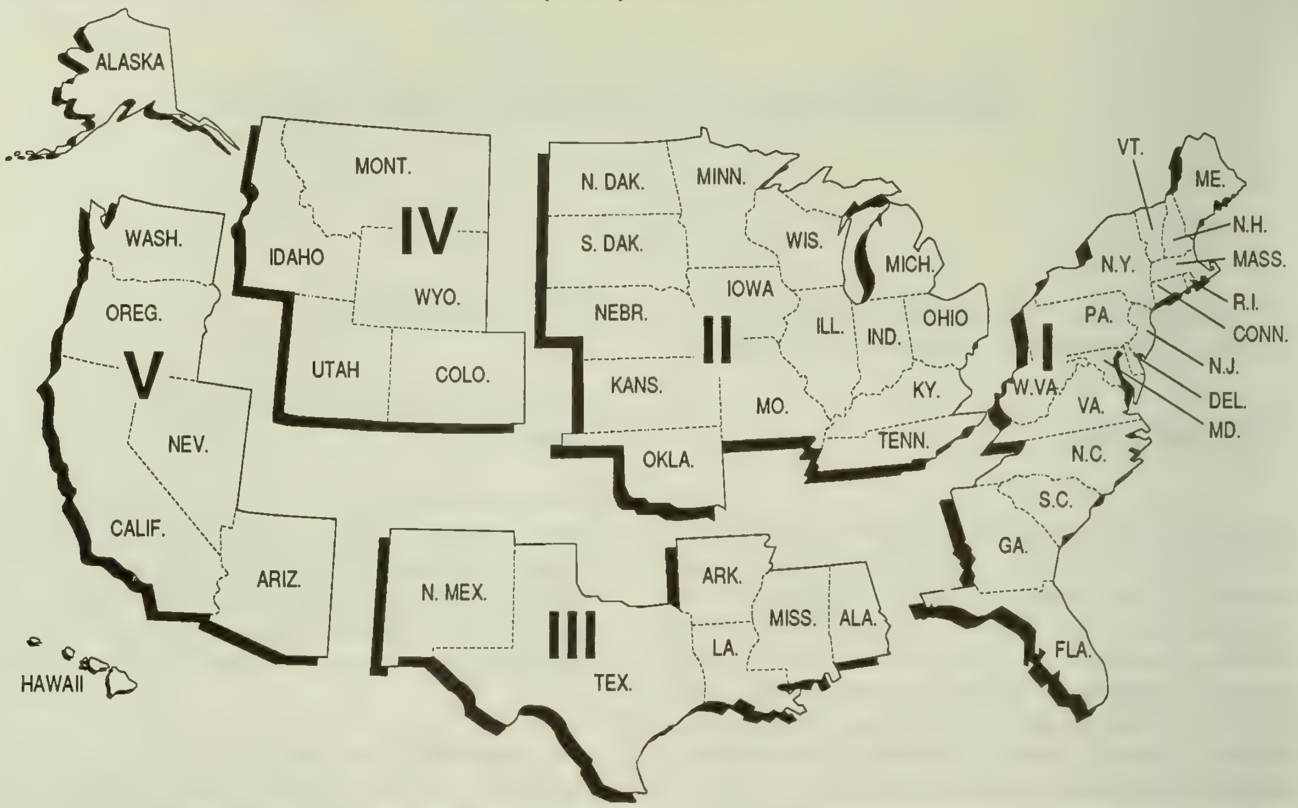
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

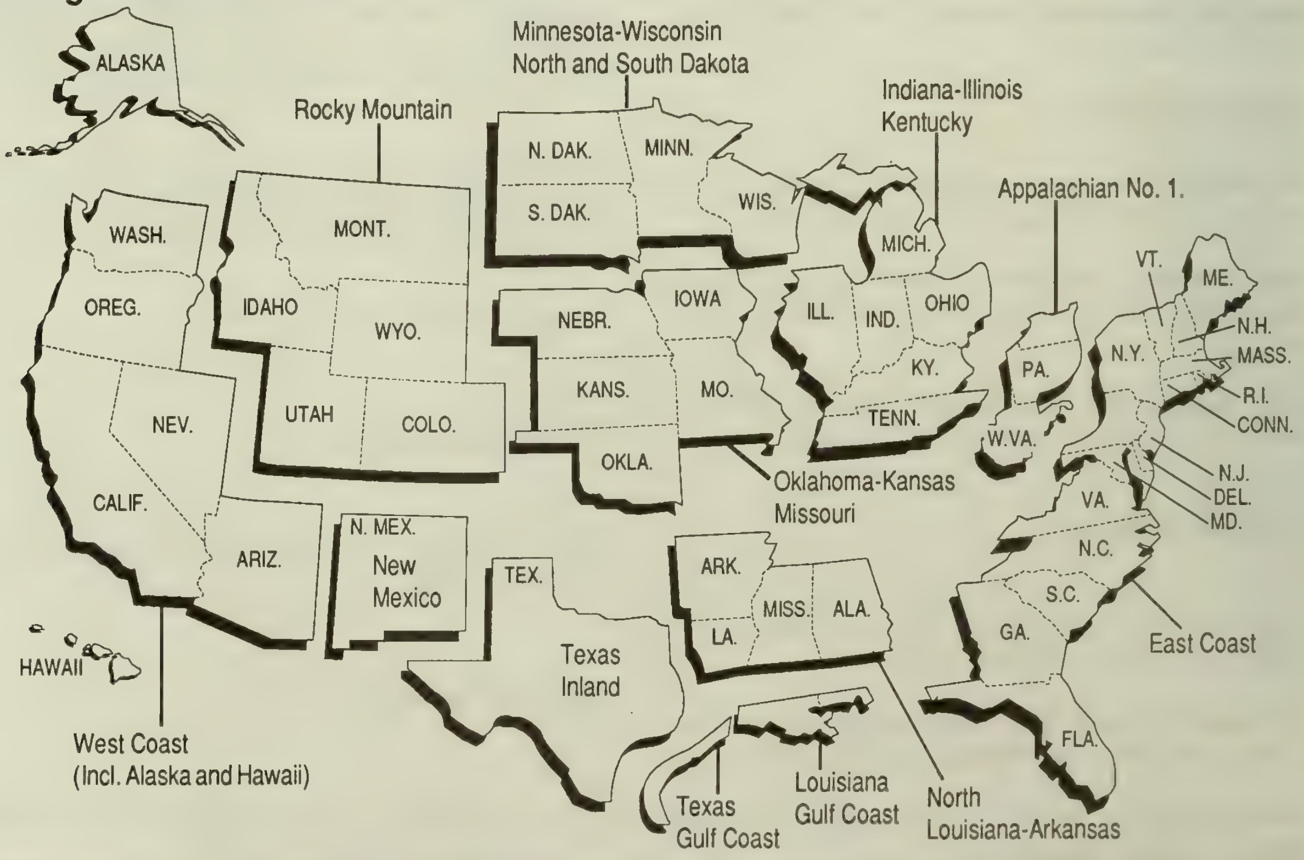
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

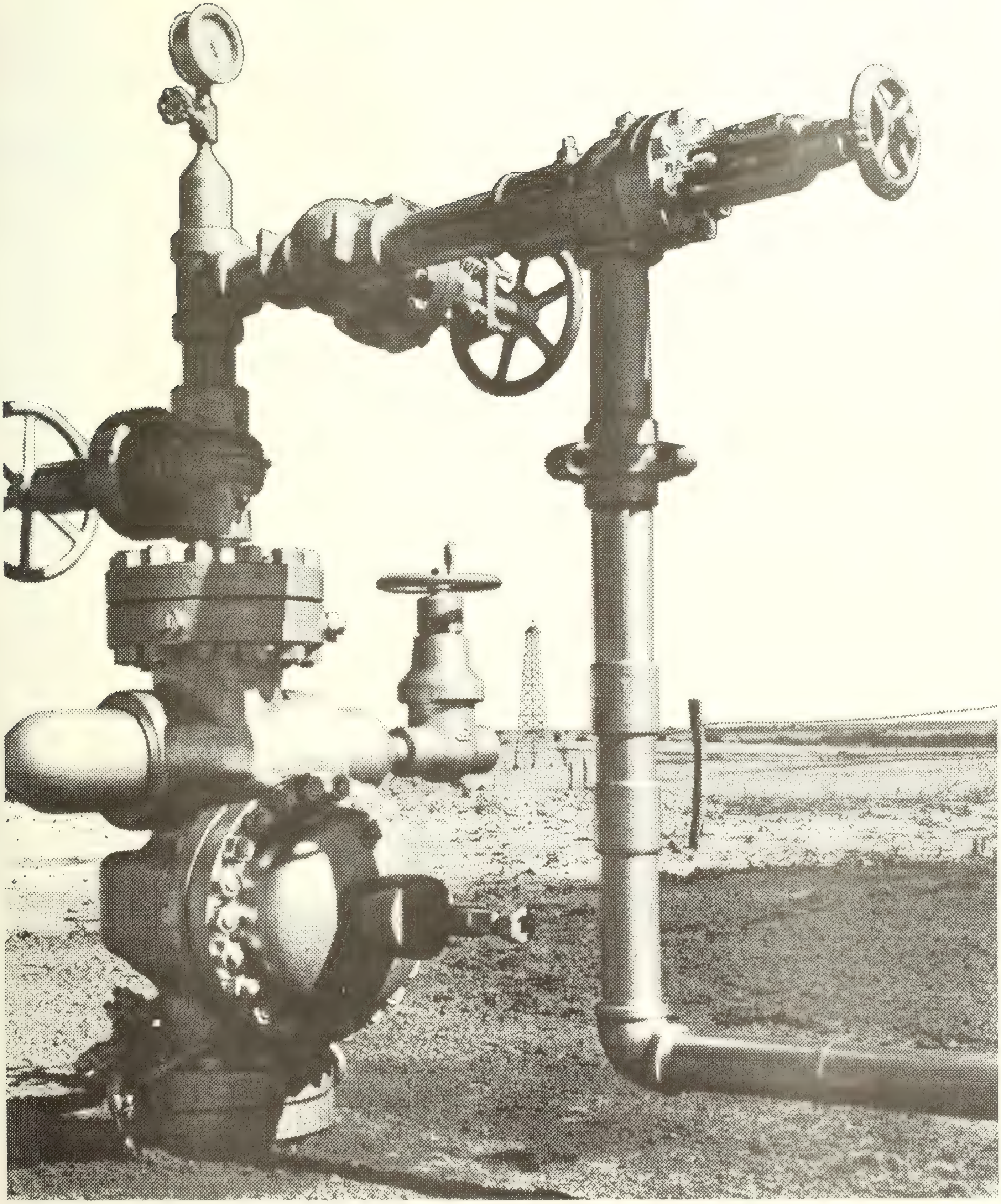


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Appendix B

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Preliminary Monthly Statistics Derivation
- Note 3. Summary Statistics Table Sources
- Note 4. Summary Statistics Figure Sources
- Note 5. Monthly Petroleum Supply Reporting System
- Note 6. Detailed Statistics Table Sources
- Note 7. Domestic Crude Oil Production
- Note 8. Export Data Source
- Note 9. Quality Control and Data Revision
- Note 10. Frames Maintenance
- Note 11. 1981 Changes in the Petroleum Supply Reporting System
- Note 12. 1984 Changes in the Petroleum Supply Reporting System
- Note 13. 1985 Changes in the Petroleum Supply Reporting System
- Note 14. 1986 Changes in the Petroleum Supply Reporting System
- Note 15. 1987 Changes in the Petroleum Supply Reporting System
- Note 16. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and monthly system -- the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e., stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figures, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 3. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics, is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). See Explanatory Note 2. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables:

- **Table S1. Crude Oil and Petroleum Products Overview**

  The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

  Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

  Crude Oil Field Production is estimated according to procedures described in Explanatory Note 7, Domestic Crude Oil Production.

  Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

  Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

  Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

  Except where otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 7, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

  Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks.

Ending Stocks are from DS Table 2 rounded to million barrels. Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 4. Summary Statistics Figure Sources

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 5. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of

50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, instrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report.*

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands, and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of processing facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and stocks located at fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Survey forms can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed.

Note 6. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current month. The tables are organized to locate National and PAD District summary data for the current month at the front. These tables are followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The sources of data for each table are described below:

Column and row headings are defined in the Glossary. The table, form or other source for items of each table, are explained below.

- **Table 1** -- Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).
  - Lines (1) through (3): Crude Oil Field Production for Alaska, Lower 48 States, and Total United States are calculated according to Explanatory Note 7.
  - Line (4): Crude Oil Imports excluding Strategic Petroleum Reserve (SPR) reported on Form EIA-814.
  - Line (5): SPR Imports are reported on Form EIA-814.
  - Line (6): Exports of crude oil taken from Census tapes and data reported on Form EIA-810 for U.S. territories.
  - Line (7): Sum of lines (4) through (6).
  - Line (8): The difference between the previous month and current month ending stocks held in the SPR.
  - Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
  - Line (10): The sum of Crude Oil Products Supplied and Crude Losses as shown in Table 2.
  - Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
  - Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
  - Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
  - Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
  - Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes

plus as shown in Table 2.

- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.
- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (19): The sum of unfinished oils and motor and aviation gasoline blending components imports reported on Form EIA-814.
- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.
- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.
- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.
- Line (23): Total Other Liquids equals the sum of lines (18) through (22).
- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).
- Line (25): Gross Imports of Refined Products equals imports of LPG plus imports of finished petroleum products as shown in Table 2.
- Line (26): Exports of Refined Products equals exports of LPG plus exports of finished petroleum products as shown in Table 2.
- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).
- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).
- Line (29): Refined Products Stock Change equals the sum of stock change for LPG and finished petroleum products in Table 2.
- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.
- Lines (31) through (34): Equal the respective products supplied of same in Table 2.
- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha equal to or less than 401 degrees fahrenheit for petrochemical feedstock use, other oils over 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.
- Line (37): Total Products Supplied is equal to total products supplied in Table 2.
- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.
- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.
- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.
- Line (44): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha equal to or less than 401 degrees fahrenheit for petrochemical feedstock use, other oils over 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 7 for further detail.

Field production of natural gas plant liquids are reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and appear on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report*. Refinery production of other hydrocarbons, hydrogen, and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report*.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report*, as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report*, that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report*. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol as reported on Form EIA-810, *Monthly Refinery Report*, and are published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. These data are reported on Form EIA-813, *Monthly Crude Oil Report.* Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.
- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.
- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.
- **Tables 6-15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.
- **Table 16** - State government agencies. See Explanatory Note 7.

Table 16 provides estimates of crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report.*

Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report.*
- **Table 19** - Form EIA-810, *Monthly Refinery Report.*

Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*
- **Table 21** - Calculated from Tables 18 and 19.

To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline) the following calculation is performed. Production for each product's net refinery production listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*
- **Tables 35 through 38** - Census export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*
- **Tables 39 through 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594), and Form EIA-810, *Monthly Refinery Report.*

A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported monthly on the Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum product are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report*, and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

  Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

  Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report.* Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 7. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior, and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report.* After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports of the various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.

- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.

- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputations as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual.*
- The final estimate is published in the *PSA*.

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month
(Thousand Barrels per Day)

Date of Data Availability	Month of Production																	
	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89
	Reported State Data[c]																	
11-14-87	0																	
12-14-87	2088	0																
1-14-88	4866	2152	0															
2-14-88	7703	5296	2127	0														
3-14-88	8190	8205	3208	2086	0													
4-14-88	8249	8286	8204	5111	2161	0												
5-14-88	8365	8401	8318	7156	5743	2151	0											
6-14-88	8365	8403	8318	8086	8103	5767	2095	0										
7-14-88	8365	8403	8319	8079	8183	7270	2686	2087	0									
8-14-88	8379	8411	8330	8134	8198	8142	7188	4859	2051	0								
9-14-88	8380	8412	8331	8134	8240	8142	8129	7968	5005	2032	0							
10-14-88	8384	8416	8335	8134	8249	8184	8131	8059	7904	5083	2128	0						
11-14-88	8384	8415	8335	8134	8240	8185	8134	8061	7995	7710	5081	2105	0					
12-14-88	8384	8416	8335	8134	8241	8185	8174	8099	7996	7775	7808	4957	2098	0				
1-14-89	8384	8416	8335	8135	8242	8186	8175	8099	7997	7776	7809	7231	4770	2051	0			
2-14-89	8386	8417	8336	8135	8242	8186	8172	8101	7998	7859	7901	7651	7296	4887	2086	0		
3-14-89	8386	8417	8336	8135	8256	8254	8172	8116	8055	7896	7936	7741	7731	7320	5083	2016	0	0
	Producing States Without Reported Monthly Production[d]																	
3-14-89	0	0	0	5	5	5	5	5	5	6	6	6	7	9	13	30	33	33

Type of Estimate	Month of Production																	
	10-87	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89
	Production Estimate																	
Original[e]	8281	8283	8348	8395	8353	8306	8269	8240	8210	8189	8128	8147	8085	8026	8035	8021	7965	7921
Interim[f]	8293	8330	8340	8245	8376	8347	8268	8203	8158	8059	8063	7900	7974	7985	7975	7913		
Form EIA-182																		
Initial	8151	8162	8144	8017	8239	8138	8106	8009	8045	7853	7895	7752	7797	7821	7845	7746		
Revised	8153	8173	8180	8048	8206	8134	8099	8015	8044	7839	7896	7755	7798	7830	7834			
Final[g]	8364	8397	8318															

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1987 (annual average of 115 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan, New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1987 after their annual reports were received. These data were first reported as of 5-14-88.

[e] Original estimates were made on the first of each month.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1987 DOE/EIA 0340(87)/2.

Note 8. Export Data Source

Background

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Export Statistics

Census export statistics used in the *Petroleum Supply Monthly* (PSM) reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 9. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) tracks the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. For weekly surveys, missing or faulty data are imputed using the exponentially smoothed average of a respondent's past reported values. For monthly surveys, the data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This is the case with PSRS weekly data, wherein respondents submit their best estimates. The same situation can also arise at times with the monthly data. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. The weekly and preliminary monthly survey data, as published in the *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), respectively, serve to provide this information in a timely manner.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month), become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 10. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement routine frames maintenance activities and provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 11: 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines.

Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The table below provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Monthly Petroleum Supply Reporting System (MPSRS) surveys were modified beginning in January 1984. They were:

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 13: 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the *Petroleum Supply Monthly* (PSM). Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline And Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *PSM* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6 through 10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products."
  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 6 through 10 were reported at the *PAD District of entry* rather than at the *PAD District of processing. Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
  - A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

Note 14: 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect. These changes affected the number of operators of petroleum facilities required to complete the monthly surveys in the MPSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals

Table B6. **Impact of New Respondents to December 1985 PSM Data**

	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

[a] Stocks as of December 31, 1985.

and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSM* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
  - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 15: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

- Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affects *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSM* statistics. The principal differences in the *PSM* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 16. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989:

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*
- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene)were added to Form EIA-810, *Monthly Refinery Report.*
- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*
- Bonded imports of jet fuel and fuel oils and imports of liquefied petroleum gases (LPGs) previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*
- Exports of butane/propane and ethane/propane mixtures are split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.
- The reporting of products other than Natural Gas Liquids by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*
- Fractionators were required to report only end-of-month stocks of natural gas liquids on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

Summary Statistics Tables

- "Stock Withdrawal" was renamed "Stock Change" and is a Disposition item rather than a Supply one. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.
- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes (continued)

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year to date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts"
  - Stocks at natural gas processing plants by Refining Districts were moved from the old Table 24 stock table and included with net production of petroleum products at natural gas plants.
  - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District"
  - Net production of olefins (ethylene, propylene, and butylene) was added.
  - Net production of naphthenic and paraffinic lubricants was added
  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts"
  - Stocks at refineries by Refining District were added from the old stock table (Table 24).
  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin"
  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination"
  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District"
  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.
  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

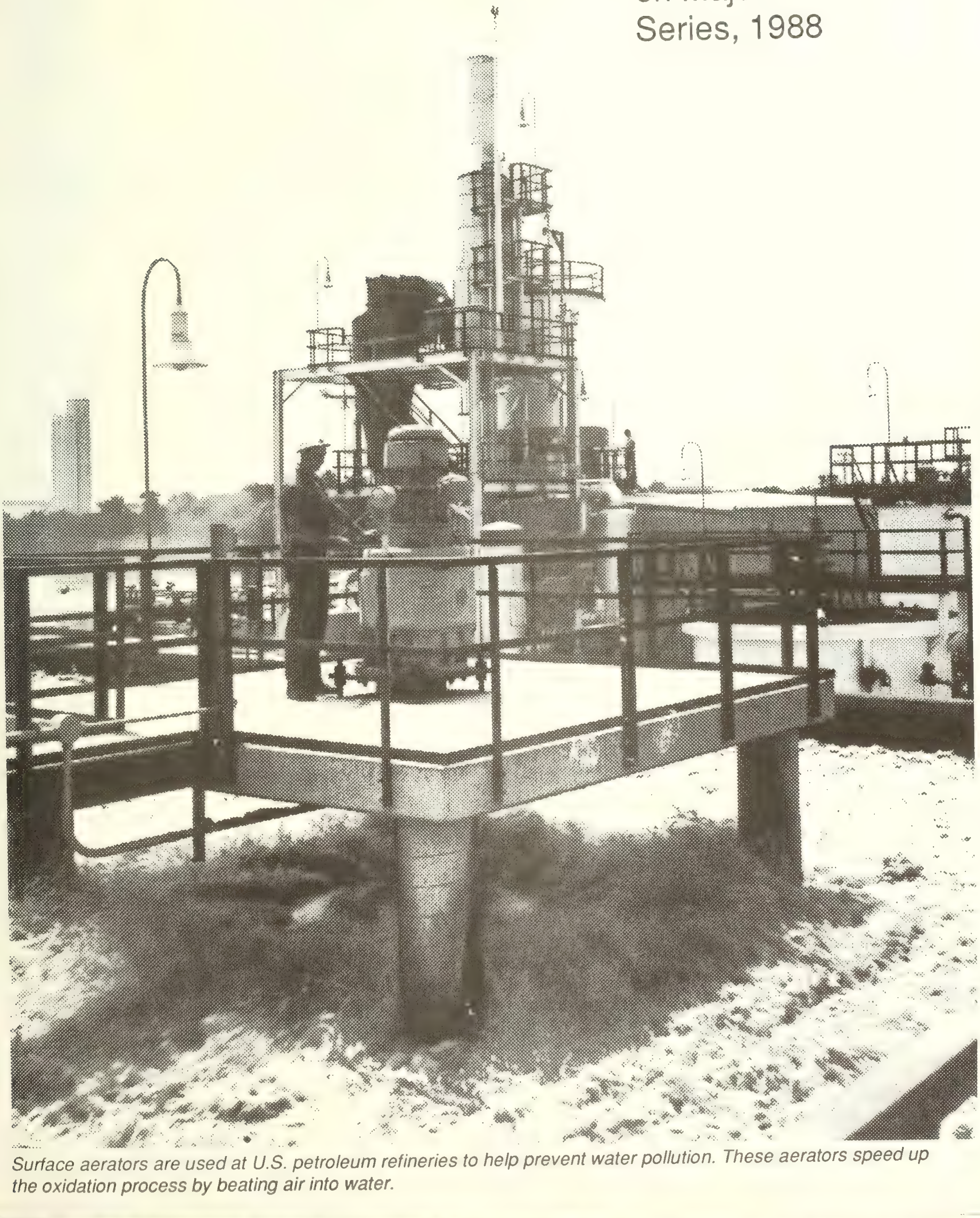
Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

Appendix C

Impact of Resubmissions on Major Series, 1988



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs												
Crude Oil	12,975	2	12,715	-22	13,072	-7	13,167	-1	13,472	-4	13,528	3
LPG's	366	-7	336	7	266	2	256	0	253	2	234	-1
Production												
LPG's	1,723	8	1,757	11	1,802	15	1,796	8	1,809	5	1,804	7
Finished Motor Gasoline	6,723	7	6,736	(s)	6,695	20	6,906	1	6,847	3	6,983	0
Naphtha-Type Jet Fuel	184	(s)	178	(s)	209	2	203	0	229	(s)	208	0
Kerosene-Type Jet Fuel	1,231	0	1,205	0	1,243	-1	1,088	0	1,060	-1	1,133	1
Kerosene	104	0	118	(s)	68	(s)	50	0	48	0	55	0
Distillate Fuel Oil	3,008	1	2,683	-8	2,720	-9	2,869	0	2,931	1	2,893	(s)
Residual Fuel Oil	1,009	-7	997	-13	944	-9	951	-10	866	-7	881	-7
Imports												
Crude Oil	4,619	30	4,692	-43	4,788	80	5,126	41	5,234	105	5,055	257
Finished Motor Gasoline	324	3	365	26	318	17	349	34	415	15	424	1
Naphtha-Type Jet Fuel	3	0	3	0	2	0	3	0	4	0	3	0
Kerosene-Type Jet Fuel	80	0	64	4	95	0	83	-2	101	3	71	4
Distillate Fuel Oil	355	22	330	32	243	1	208	2	228	22	209	12
Residual Fuel Oil	737	50	792	85	610	41	465	31	423	9	349	-13
Other Products	556	64	503	103	506	62	611	99	647	81	629	80
Stocks (Thousand Barrels)												
Crude Oil	345,479	99	347,835	180	353,625	339	357,131	241	357,724	1,937	359,001	-148
Unfinished Oils	95,338	647	97,786	723	102,134	342	102,847	270	112,069	208	114,952	471
LPG's	80,741	-186	70,191	899	68,808	757	79,671	748	89,992	949	99,988	1,039
Total Motor Gasoline	239,464	744	240,661	697	231,258	485	225,956	745	225,644	402	208,969	906
Naphtha-Type Jet Fuel	8,366	-748	6,731	-645	7,156	-517	6,713	-438	7,397	-544	6,750	-9
Kerosene-Type Jet Fuel	37,912	75	36,889	-7	39,548	-3	39,270	-38	39,392	39	38,990	20
Distillate Fuel Oil	127,155	472	109,640	183	89,312	48	94,290	115	104,452	-246	110,662	-262
Residual Fuel Oil	46,628	74	45,465	191	44,057	230	43,245	71	45,746	694	42,123	98
Product Supplied												
LPG's	2,069	21	1,982	-35	1,710	17	1,339	8	1,350	-4	1,343	5
Finished Motor Gasoline	6,679	-12	7,004	27	7,265	43	7,384	29	7,269	29	7,838	-19
Naphtha-Type Jet Fuel	173	24	237	-4	197	-2	221	-3	208	3	233	-18
Kerosene-Type Jet Fuel	1,360	-2	1,270	7	1,200	-1	1,167	-1	1,153	(s)	1,202	5
Distillate Fuel Oil	3,517	8	3,511	34	3,544	-4	2,870	(s)	2,757	34	2,820	13
Residual Fuel Oil	1,578	41	1,601	68	1,434	30	1,272	26	945	-18	1,102	(s)
Major Products Supplied	15,376	79	15,605	97	15,350	84	14,253	59	13,682	46	14,538	-14

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.
(s) = Less than 500 barrels per day.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Table C1. Impact of Resubmissions on Major Series, 1988 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Avg Difference
Inputs													
Crude Oil	13,663	(s)	13,797	-3	13,309	4	13,188	-12	13,196	12	--	--	-2
LPG's	228	0	241	(s)	251	0	296	0	425	0	--	--	(s)
Production													
LPG's	1,831	7	1,848	-4	1,837	(s)	1,869	(s)	1,831	2	--	--	5
Finished Motor Gasoline	7,159	0	7,204	5	6,948	(s)	6,875	-18	7,057	4	--	--	2
Naphtha-Type Jet Fuel	209	(s)	206	0	198	0	208	(s)	219	0	--	--	(s)
Kerosene-Type Jet Fuel	1,155	(s)	1,138	(s)	1,178	-1	1,158	(s)	1,118	0	--	--	(s)
Kerosene	64	0	81	0	78	2	80	(s)	99	0	--	--	(s)
Distillate Fuel Oil	2,783	1	2,844	4	2,779	-1	2,830	-3	2,905	4	--	--	-0
Residual Fuel Oil	913	-7	863	-3	859	-8	863	-11	923	-7	--	--	-7
Imports													
Crude Oil	5,006	94	5,039	51	5,183	8	5,542	9	5,017	53	--	--	62
Finished Motor Gasoline	461	7	465	21	403	24	363	-10	451	0	--	--	12
Naphtha-Type Jet Fuel	3	0	3	0	3	0	3	0	3	0	--	--	0
Kerosene-Type Jet Fuel	78	6	100	0	59	(s)	136	7	76	0	--	--	2
Distillate Fuel Oil	205	16	270	9	292	14	324	5	308	19	--	--	13
Residual Fuel Oil	436	52	515	66	566	78	522	71	765	7	--	--	43
Other Products	571	122	541	58	520	68	560	65	666	75	--	--	79
Stocks (Thousand Barrels)													
Crude Oil	349,330	155	333,170	389	328,448	107	339,607	-25	337,049	-41	--	--	293
Unfinished Oils	113,600	388	111,078	280	109,168	51	108,951	63	112,556	60	--	--	318
LPG's	111,906	929	120,611	1,127	121,620	798	119,923	1,158	115,091	20	--	--	748
Total Motor Gasoline	213,757	1,440	218,602	1,301	220,594	617	217,313	188	221,094	-51	--	--	679
Naphtha-Type Jet Fuel	6,710	19	6,861	19	6,492	11	6,316	0	6,436	0	--	--	-259
Kerosene-Type Jet Fuel	40,297	-6	39,971	33	40,317	-11	41,032	-1	40,018	0	--	--	9
Distillate Fuel Oil	119,434	364	125,185	487	130,976	406	127,949	283	128,724	37	--	--	171
Residual Fuel Oil	41,072	79	37,840	321	44,220	406	42,405	65	45,089	-1,093	--	--	103
Product Supplied													
LPG's	1,416	11	1,517	-10	1,704	11	1,787	-12	1,753	40	--	--	4
Finished Motor Gasoline	7,473	-10	7,511	41	7,349	36	7,287	-14	7,369	10	--	--	14
Naphtha-Type Jet Fuel	213	-1	204	0	206	(s)	214	(s)	218	0	--	--	(s)
Kerosene-Type Jet Fuel	1,187	7	1,234	-1	1,216	1	1,269	7	1,219	(s)	--	--	1
Distillate Fuel Oil	2,647	-3	2,860	9	2,806	16	3,204	6	3,153	31	--	--	13
Residual Fuel Oil	1,177	46	1,258	55	1,112	67	1,263	71	1,453	39	--	--	38
Major Products Supplied	14,113	50	14,584	94	14,393	131	15,024	59	15,165	120	--	--	73

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.
(s) = Less than 500 barrels per day.

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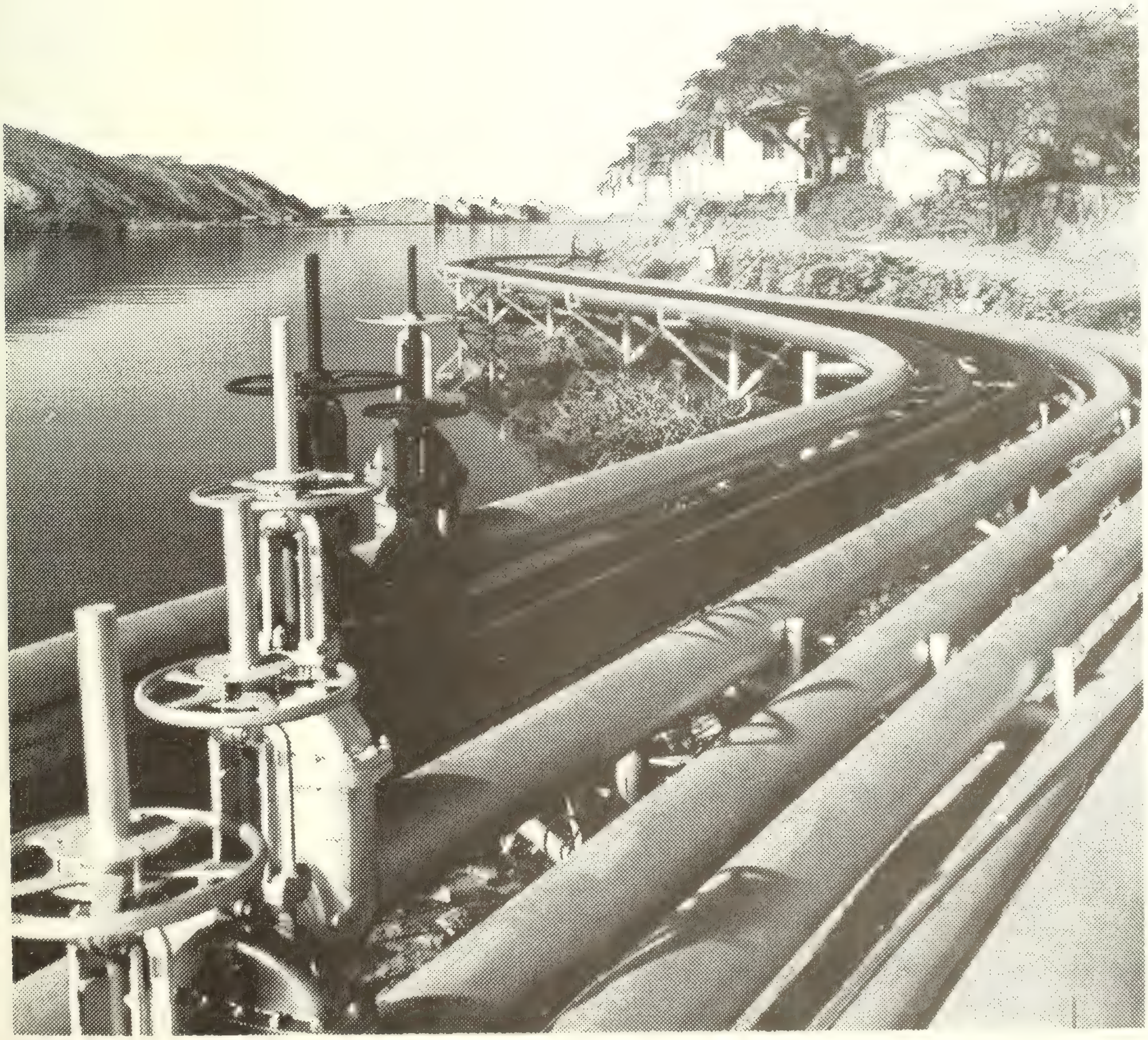
Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr. 60^\circ F/60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° F to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C6H6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline throug mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil .*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400° F at the 10-percent recovery point and 550° F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540° F and 640° F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a maximum distillation temperature of 550° F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640°F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specifi-

cation VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.

2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit are reprocessed and are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° F to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, (C6H14). It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C4); an alkylation process feedstock, and normal pentane and hexane into isopentane, (C5); and isohexane, (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

> ***Bright Stock.*** A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.
>
> ***Neutral.*** A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. A product of hydro-treating, acid treatment, or solvent extraction.
>
> ***Other.*** A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils, and medicinal oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. The Reid Vapor

Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

> ***Finished Leaded Gasoline.*** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.
>
> ***Finished Unleaded Gasoline.*** Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.
>
> ***Gasohol.*** A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 °F.

Naphtha Less Than 401° F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C5H12), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Operating Ratio. Represents the utilization of the atmospheric crude oil distillation units. The ratio is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401° F. *See Petrochemical Feedstocks.*

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401° F" and "Other Oils Equal To or Greater Than 401° F."

> ***Naphtha Less Than 401° F.*** A naphtha with a boiling range of less than 400° F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401° F.*** Oils with a boiling range of over 400° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Production Capacity. The amount of product that can be produced from processing facilities.

Propane. A normally gaseous straight-chain hydrocarbon, (C3H8). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids; other hydrocarbons and alcohol; and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000° F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 °F (D1321)-60 maximum. Viscosity at 210° F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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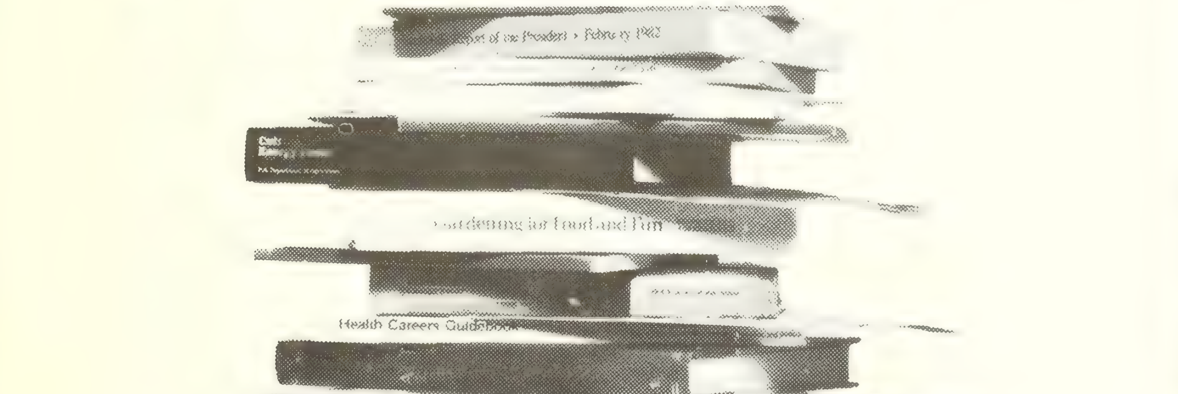

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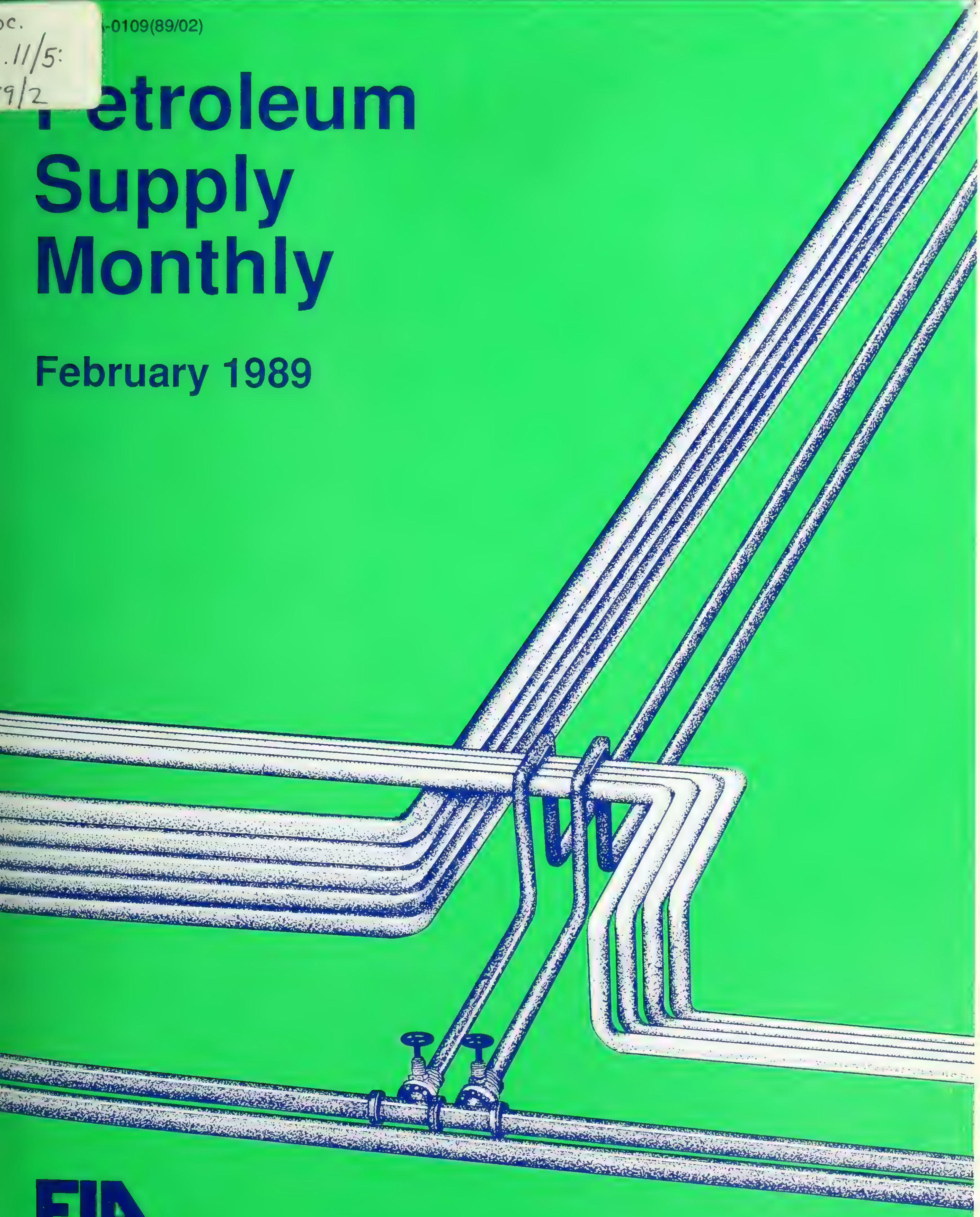

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Cover: An artist's rendering of a typical pipeline network moving crude oil and petroleum products at a refinery complex.

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Tapes are sold for $200 each and should be referenced by the titles listed below:

Petroleum Supply Annual -- 1983-1987
Petroleum Supply Monthly -- Preliminary (1988 and 1989)
Oil Imports into the United States and Puerto Rico, Annual -- 1977-1985
Oil Imports into the United States and Puerto Rico, Annual -- 1986-1987
Oil Imports into the United States and Puerto Rico, Monthly -- Preliminary (1988 and 1989)

To order, contact:

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Office of Data Base Services
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703)487-4650

Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202)586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703)487-4807.

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Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in "Primary Supply." Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics. Below is a description of each section.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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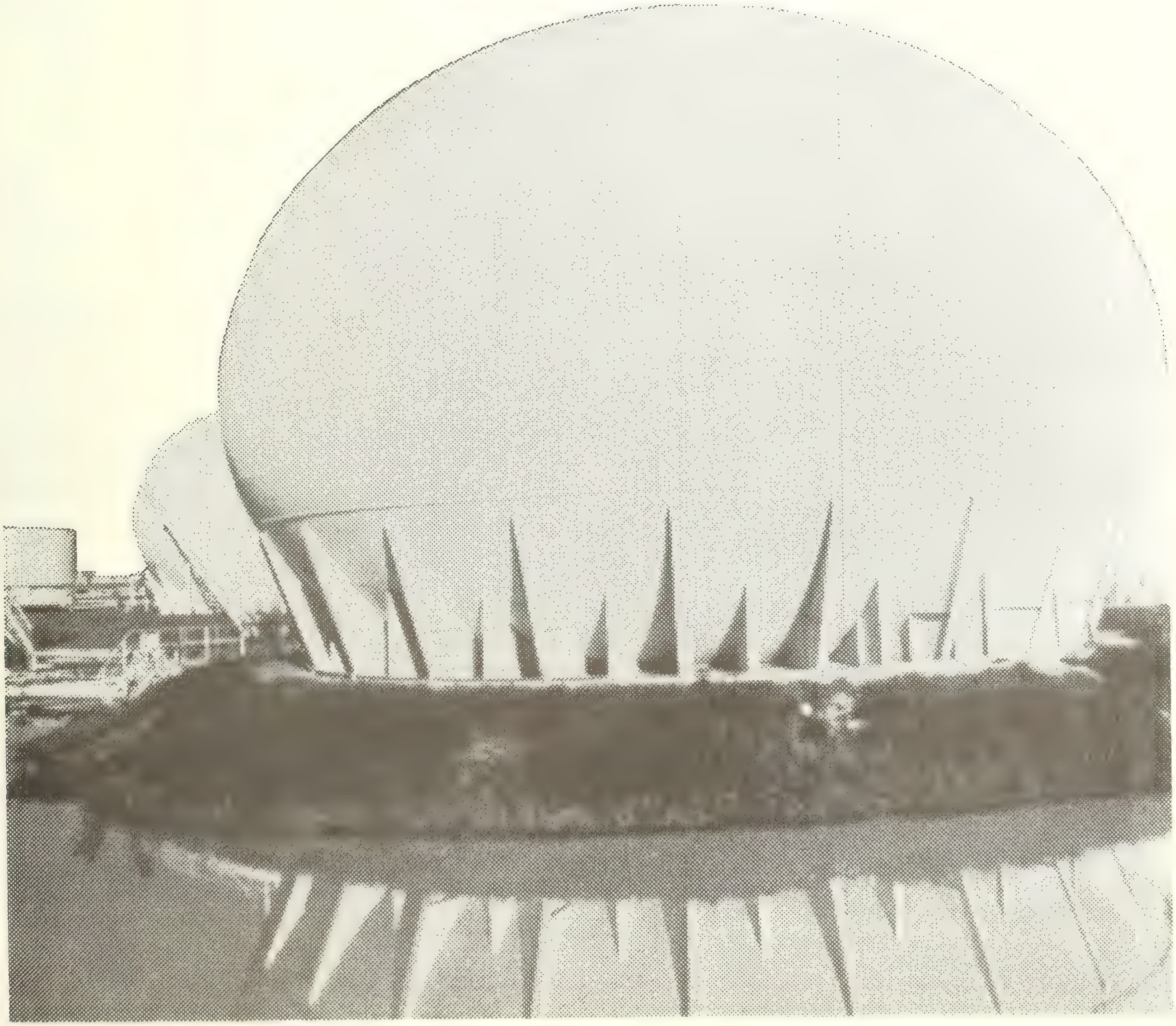
Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

Trends in Petroleum Product Consumption	January 1986
Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
Recent Trends for Middle Distillates	July 1986
Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
U.S. Exports of Petroleum Products Reach Record High	December 1986
Trends in Petroleum Product Consumption	February 1987
Refinery Capacity: 1987	March 1987
Motor Gasoline Outlook for Summer 1987	March 1987
Motor Gasoline Trends Through 1986	March 1987
Timeliness and Accuracy of Petroleum Supply Data	April 1987
Midyear Petroleum Review	May 1987
Petroleum Heating Fuels	July 1987
Distillate Fuel Oil Outlook for Winter 1987/1988	July 1987
Petroleum Exports	August 1987
EIA Releases Annual Reserves Summary	August 1987
Comparisons of Independent Statistics on Petroleum Supply	September 1987
The Northeast-Distillate Fuel Oil Supply	November 1987
U.S. Petroleum Developments: 1987	December 1987
U.S. Petroleum Import/Export Trends Through 1987	January 1988
Motor Gasoline Trends Through 1987	February 1988
Distillate Fuel Oil Outlook: Winter 1988/1989	July 1988
Comparison of Independent Statistics on Petroleum Supply	September 1988
U.S. Petroleum Developments: 1988	December 1988
U.S. Petroleum Trade Trends: 1988	January 1989

Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Total U.S. demand for petroleum products (measured as product supplied), averaged 17.8 million barrels per day in February 1989 (Table H1). This was 0.6 million barrels per day higher than in January 1989 and 0.2 million barrels per day higher than in February 1988. Colder weather, relatively low prices, and continued economic growth contributed to an increase in demand for most major petroleum products in February 1989.

Other February 1989 highlights include the following:

- Total product stocks decreased 19.7 million barrels to 705.0 million barrels in February.

- Crude oil imports, excluding the Strategic Petroleum Reserve (SPR), decreased 0.3 million barrels per day to 5.2 million barrels per day.

- Refinery utilization decreased from a rate of 86.1 percent in January to 82.9 percent in February.

Product Supplied

Motor gasoline demand increased 0.4 million barrels per day in February to 7.1 million barrels per day. Demand was slightly higher than during February 1988. For the year to date, motor gasoline demand averaged 6.9 million barrels per day, 1.0 percent higher than during the same period in 1988. The average retail price of motor gasoline during the first 2 months of 1989 was close to the December 1988 price. This, together with an increase in disposable income, contributed to an increase in automobile travel this year.

The increase in distillate fuel oil demand that usually occurs in January came in February this year. February 1989 demand of 3.4 million barrels per day was 0.1 million barrels per day above the January level. With February weather considerably colder than the unusually mild January weather this year, heating demand increased during February. In addition,

From remote areas such as this field in Egypt, foreign crude oil eventually becomes part of U.S. supply. Imports of crude oil in February, excluding those for the Strategic Petroleum Reserve, averaged 5.2 million barrels per day.

Table H1. Petroleum Supply Summary, February 1989
(Million Barrels per Day, Except Where Noted)

Category	1989			1988	Cumulative January Through February	
	February	January	Difference[a]	February	1989	1988
Products Supplied	**17.8**	**17.2**	**0.6**	**17.6**	**17.5**	**17.4**
Finished Motor Gasoline	7.1	6.7	0.4	7.0	6.9	6.8
Distillate Fuel Oil	3.4	3.3	0.1	3.5	3.4	3.5
Residual Fuel Oil	1.7	1.6	0.1	1.6	1.6	1.6
Liquefied Petroleum Gases	2.0	2.1	(s)	2.0	2.0	2.0
Other Petroleum Products[b]	3.5	3.5	(s)	3.4	3.5	3.4
Crude Oil	(s)	(s)	(s)	0.1	(s)	(s)
Crude Oil Inputs	**12.8**	**13.3**	**-0.6**	**12.7**	**13.1**	**12.8**
Refinery Utilization (percent)	**82.9**	**86.1**	**-3.2**	**81.1**	**84.6**	**82.0**
Imports	**7.9**	**8.0**	**-0.1**	**7.0**	**8.0**	**6.9**
Crude Oil	**5.3**	**5.5**	**-0.3**	**4.7**	**5.4**	**4.7**
SPR	0.1	0.1	(s)	(s)	0.1	0.1
Other	5.2	5.5	-0.3	4.6	5.3	4.6
Products	**2.6**	**2.5**	**0.1**	**2.3**	**2.6**	**2.3**
Finished Motor Gasoline	0.4	0.3	(s)	0.4	0.4	0.3
Distillate Fuel Oil	0.3	0.3	(s)	0.3	0.3	0.3
Residual Fuel Oil	0.9	0.9	(s)	0.8	0.9	0.8
Liquefied Petroleum Gases	0.3	0.2	(s)	0.2	0.2	0.2
Other Petroleum Products[b]	0.8	0.7	0.1	0.6	0.8	0.6
Exports	**0.9**	**0.8**	**0.1**	**0.9**	**0.8**	**0.9**
Crude Oil	0.2	0.1	0.1	0.1	0.2	0.2
Products	0.7	0.6	(s)	0.7	0.6	0.7
Total Net Imports	**7.0**	**7.3**	**-0.2**	**6.1**	**7.2**	**6.1**
Stock Change[c]	**-0.6**	**0.6**	-1.3	-0.8	(s)	-0.5
Crude Oil	0.1	0.1	-0.1	0.1	0.1	(s)
Products	-0.7	0.5	-1.2	-0.9	-0.1	-0.6
Total Stocks at End of Period (Million Barrels)	**1,601.6**	**1,619.5**	**-17.9**	**1,575.1**	**- -**	**- -**
Crude Oil	**896.6**	**894.8**	**1.8**	**892.0**	**- -**	**- -**
SPR	563.9	561.5	2.4	544.1	- -	- -
Other	332.7	333.3	-0.6	347.8	- -	- -
Products	**705.0**	**724.7**	**-19.7**	**683.1**	**- -**	**- -**
Finished Motor Gasoline	203.6	205.8	-2.2	202.3	- -	- -
Distillate Fuel Oil	107.5	120.3	-12.7	109.6	- -	- -
Residual Fuel Oil	46.0	47.0	-1.0	45.5	- -	- -
Liquefied Petroleum Gases	77.5	87.0	-9.4	70.2	- -	- -
Other Petroleum Products[b]	270.4	264.7	5.6	255.5	- -	- -

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels or less than 0.05 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration. Appropriate issues of *Petroleum Supply Monthly* . (See Explanatory Note 3.)

demand for diesel fuel continued to be strong, related to the sustained growth in industrial production this year. The weather for the first 2 months of 1989 was warmer than for the same period in 1988. This contributed to a decline of 4.6 percent in distillate fuel oil demand, compared to demand during the first 2 months of 1988.

The colder than normal temperatures in February after an unseasonably warm January contributed to a moderate increase in residual fuel oil demand in February. The colder weather, along with relatively low prices for residual fuel oil, caused demand to increase from 1.6 million barrels per day in January to 1.7 million barrels per day in February. Demand for the first 2 months of 1989 of 1.6 million barrels per day was the highest for the period since 1984, and was 3.0 percent higher than during the same period of 1988.

The February liquefied petroleum gas (LPG) demand of 2.0 million barrels per day was close to the January level. Sustained high demand for LPGs at petrochemical plants and the frigid weather, which increased the demand for propane in the Midwest, kept demand strong. Year-to-date LPG demand averaged 2.0 million barrels per day, 0.9 percent more than during the comparable period of 1988.

Kerosene-type jet fuel demand in February remained seasonably strong at 1.3 million barrels per day. This was very close to the January level. For the first 2 months of the year, demand for kerosene-type jet fuel was 1.3 million barrels per day, about the same as the demand during the comparable period in 1988.

Product Stocks

Following an increase of 15.9 million barrels in January, petroleum product stocks fell 19.7 million barrels in February to 705.0 million barrels. At the end of February 1989, product stocks were 21.9 million barrels above the level at the end of February 1988. Of the major products, only stocks of LPGs were significantly higher than year-earlier levels.

Distillate fuel oil stocks showed the largest decrease from January 1989 levels. Stocks dropped 12.7 million barrels to 107.5 million barrels by the end of the month. With refinery production lower because of refinery maintenance, the strong distillate fuel oil demand in February was met primarily by withdrawals from stocks. Distillate fuel oil inventories at the end of February 1989 were 2.1 million barrels lower than at the end of February 1988.

Stocks of LPGs continued their seasonal decline in February, falling 9.4 million barrels to 77.5 million barrels. Most of the decline was in propane stocks, which were drawn down during the winter months, largely to accommodate increased heating requirements. Compared with February 1988, LPG stocks at the end of February 1989 were 7.3 million barrels higher.

Stocks of motor gasoline fell 2.2 million barrels in February to 203.6 million barrels. Almost the entire decline was in stocks of leaded motor gasoline. Motor gasoline stocks at the end of February were 1.2 million barrels higher than the level at the end of February 1988.

Residual fuel oil inventories decreased 1.0 million barrels in February to 46.0 million barrels. February is normally a time of more sizable drawdowns of residual fuel oil. For February 1989, higher imports than for the same period of 1988 helped to accommodate the increase in demand. Residual fuel oil stocks were 0.5 million barrels above the level at the end of February 1988.

While demand for asphalt and road oil was seasonably low in February, stocks continued to be built up in preparation for road maintenance activities in the spring. Stocks increased 3.5 million barrels to 29.1 million barrels at the end of February. This was 3.4 million barrels higher than the level at the end of February 1988.

Crude Oil

Gross imports of crude oil (excluding those for SPR) averaged 5.2 million barrels per day in February, 0.3 million barrels per day lower than in January. A decline of 0.2 million barrels per day from both Saudi Arabia and Nigeria was somewhat offset by increased imports fromNorway of 0.2 million barrels per day. Imports from Norway generally average well below 0.1 million barrels per day. For the year-to-date, crude oil imports averaged 5.3 million barrels per day, 15.8 percent higher than during the same period of 1988.

Stocks of crude oil declined slightly in February. Ending stocks of 332.7 million barrels were 0.6 million barrels below the January level. At the end of February 1989, crude oil stocks were 15.1 million barrels lower than for the same period in 1988.

It is estimated that domestic production of crude oil declined in February for the third consecutive month. Production averaged an estimated 7.8 million barrels per day. Alaskan production was about the same as in January, averaging 2.0 million barrels per day. Production in the lower-48 States averaged an estimated 5.9 million barrels per day, 0.1 million barrels per day below the January level. For the first 2 months of 1989, domestic crude oil production averaged 7.9 million barrels per day, 5.2 percent lower than during the first 2 months in 1988.

Refinery Utilization

The refinery utilization rate decreased in February for the first time since October 1988. The utilization rate dropped from 86.1 percent in January to 82.9 percent in February, primarily because of a decrease of 0.5 million barrels per day in gross (crude oil and other) inputs to crude oil distillation units. Gross inputs normally decline in February because of planned maintenance activities in preparation for the summer driving season. Gross inputs to distillation units averaged 13.0 million barrels per day. Operable capacity averaged 15.7 million barrels per day. Of this capacity, refineries which did not report any inputs or production in the last three months accounted for 379 thousand barrels per day. Those refineries which did not report any inputs or production for the last twelve months accounted for 347 thousand barrels per day.

Downstream activity also decreased in February. Inputs of fresh feed to catalytic cracking, catalytic hydrocracking, and coking units averaged 6.5 million barrels per day, 0.3 million barrels per day lower than during January. This decrease in downstream refining activity was reflected in lower motor gasoline production in February.

Summary Statistics

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *Petroleum Supply Monthly*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication in May 1989. Revisions for 1987 data are not planned.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	**10,975**	**9,208**	**1,738**	**-11**	**146**	**17,308**	**1,008**
1974 Average	**10,498**	**8,774**	**1,688**	**62**	**117**	**16,653**	**h 1,074**
1975 Average	**10,045**	**8,375**	**1,633**	**h 17**	**h 15**	**16,322**	**1,133**
1976 Average	**9,774**	**8,132**	**1,603**	**39**	**-96**	**17,461**	**1,112**
1977 Average	**9,913**	**8,245**	**1,618**	**170**	**378**	**18,431**	**1,312**
1978 Average	**10,328**	**8,707**	**1,567**	**78**	**-172**	**18,847**	**1,278**
1979 Average	**10,179**	**8,552**	**1,584**	**148**	**25**	**18,513**	**1,341**
1980 Average	**10,214**	**8,597**	**1,573**	**98**	**42**	**17,056**	**h 1,392**
1981 Average	**10,230**	**8,572**	**1,609**	**h 290**	**h -130**	**16,058**	**1,484**
1982 Average	**10,252**	**8,649**	**1,550**	**136**	**-283**	**15,296**	**h 1,430**
1983 Average	**10,299**	**8,688**	**1,559**	**h 214**	**h -234**	**15,231**	**1,454**
1984 Average	**10,554**	**8,879**	**1,630**	**199**	**81**	**15,726**	**1,556**
1985 Average	**10,636**	**8,971**	**1,609**	**50**	**-153**	**15,726**	**1,519**
1986 Average	**10,289**	**8,680**	**1,551**	**78**	**124**	**16,281**	**1,593**
1987 January	10,139	8,480	1,582	166	-376	16,684	1,586
February	10,073	8,389	1,618	22	-831	16,908	1,563
March	10,131	8,464	1,598	125	-340	16,165	1,557
April	10,139	8,498	1,590	-50	-532	16,524	1,539
May	9,977	8,336	1,585	-36	116	16,026	1,542
June	9,906	8,279	1,578	165	42	16,830	1,548
July	9,895	8,251	1,582	-33	372	17,113	1,558
August	9,843	8,210	1,571	345	737	16,346	1,592
September	9,851	8,205	1,582	220	236	16,670	1,606
October	10,037	8,364	1,602	661	-523	16,941	1,610
November	10,112	8,397	1,637	355	478	16,343	1,635
December	10,001	8,318	1,621	-405	-482	17,445	1,607
Average	**10,008**	**8,349**	**1,595**	**128**	**-87**	**16,665**	--
1988 January	E 9,874	E 8,245	1,569	-56	-285	17,224	1,597
February	E 10,016	E 8,376	1,594	130	-895	17,584	1,575
March	E 10,044	E 8,347	1,628	212	-748	17,530	1,559
April	E 9,935	E 8,268	1,609	194	450	16,440	1,578
May	E 9,881	E 8,203	1,624	41	1,049	16,117	1,612
June	E 9,815	E 8,158	1,605	113	-146	17,054	1,611
July	E 9,728	E 8,059	1,609	-270	788	16,555	1,627
August	E 9,756	E 8,063	1,624	-495	304	17,375	1,621
September	E 9,585	E 7,900	1,622	-74	296	16,816	1,627
October	E 9,703	E 7,974	1,665	403	-315	17,481	1,630
November	E 9,711	E 7,985	1,667	4	137	17,426	1,634
December	E 9,680	E 7,975	1,635	-160	-962	18,429	1,600
Average	**E 9,810**	**E 8,129**	**1,621**	**2**	**-25**	**17,170**	--
1989 January	E 9,638	E 7,913	1,653	130	512	17,211	1,620
February*	RE 9,469	RE 7,830	R 1,601	R 63	R -704	R 17,765	R 1,602
March**	PE 9,355	PE 7,645	E 1,640	E *-90*	E *-515*	E *17,284*	E *1,578*
3-Mo. Average	**PE 9,488**	**PE 7,795**	**E 1,632**	**E 34**	**E -220**	**E 17,409**	--
1988 3-Mo. Average	**E 9,977**	**E 8,321**	**1,597**	**95**	**-637**	**17,443**	--
1987 3-Mo. Average	**10,116**	**8,446**	**1,599**	**107**	**-505**	**16,575**	--

Beginning in the January 1989 issue, the "stock withdrawal" data series were reformulated as the "stock change" data series. This reformulation changed the data series from supply items to disposition items. Numerical values remained the same in both series but their signs were reversed.

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations.
See Explanatory Note 10.
Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[g]
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 Average	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 Average	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 Average	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 Average	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 Average	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	**631**	**5,439**
1987 January	6,353	4,385	1,968	703	84	619	5,650
February	5,984	3,866	2,118	977	284	694	5,007
March	5,794	3,779	2,015	720	150	570	5,074
April	5,911	4,132	1,779	870	247	624	5,041
May	6,073	4,340	1,732	666	69	597	5,407
June	6,769	4,807	1,962	669	116	554	6,099
July	7,588	5,295	2,293	680	149	531	6,908
August	7,454	5,510	1,944	664	141	523	6,790
September	7,178	5,110	2,068	795	116	680	6,382
October	7,068	5,142	1,926	646	84	562	6,422
November	7,068	5,013	2,055	737	164	573	6,331
December	6,833	4,640	2,194	1,057	220	838	5,776
Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 January	6,900	4,619	2,281	891	212	679	6,009
February	6,995	4,692	2,303	867	149	718	6,128
March	6,727	4,788	1,938	839	218	622	5,888
April	7,050	5,126	1,924	678	117	562	6,371
May	7,218	5,234	1,983	817	141	676	6,401
June	6,885	5,055	1,830	941	141	800	5,944
July	6,994	5,006	1,988	831	191	640	6,164
August	7,174	5,039	2,135	817	155	661	6,357
September	7,220	5,183	2,037	675	122	554	6,545
October	7,666	5,542	2,124	737	171	566	6,929
November	7,544	5,017	2,527	721	151	569	6,823
December	7,680	5,225	2,455	1,011	132	879	6,669
Average	**7,172**	**5,045**	**2,127**	**819**	**159**	**661**	**6,353**
1989 January	8,040	5,521	2,519	760	136	624	7,280
February*	R 7,909	R 5,263	R 2,646	R 875	R 208	R 666	R 7,034
March**	E *7,455*	E *5,132*	E *2,323*	E 946	E 133	E 813	E 6,509
3-Mo. Average	E **7,798**	E **5,307**	E **2,491**	E **860**	E **158**	E **702**	E **6,938**
1988 3-Mo. Average	**6,871**	**4,700**	**2,171**	**866**	**194**	**672**	**6,006**
1987 3-Mo. Average	**6,046**	**4,015**	**2,031**	**794**	**169**	**625**	**5,252**

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

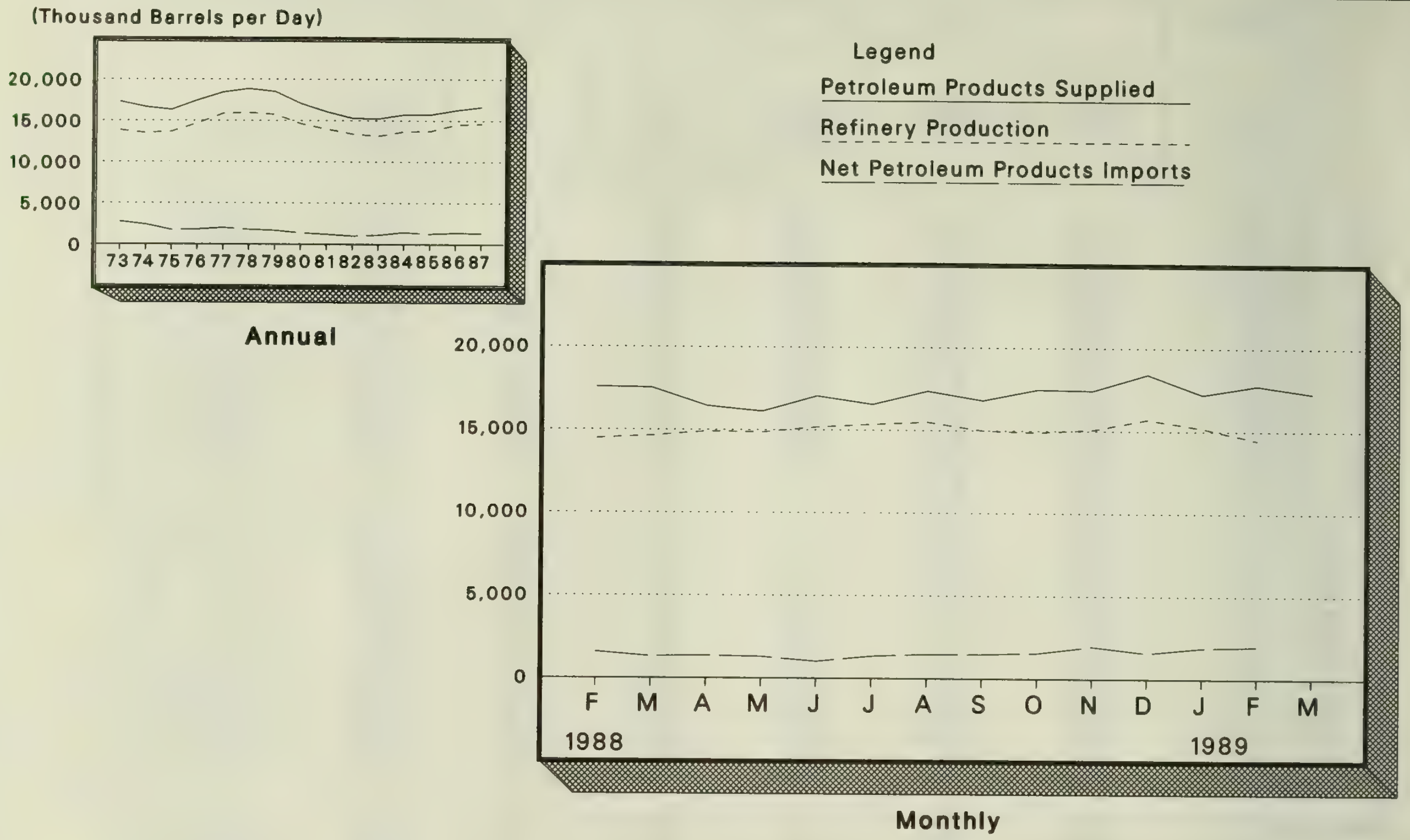


Figure S2. Petroleum Products Supplied

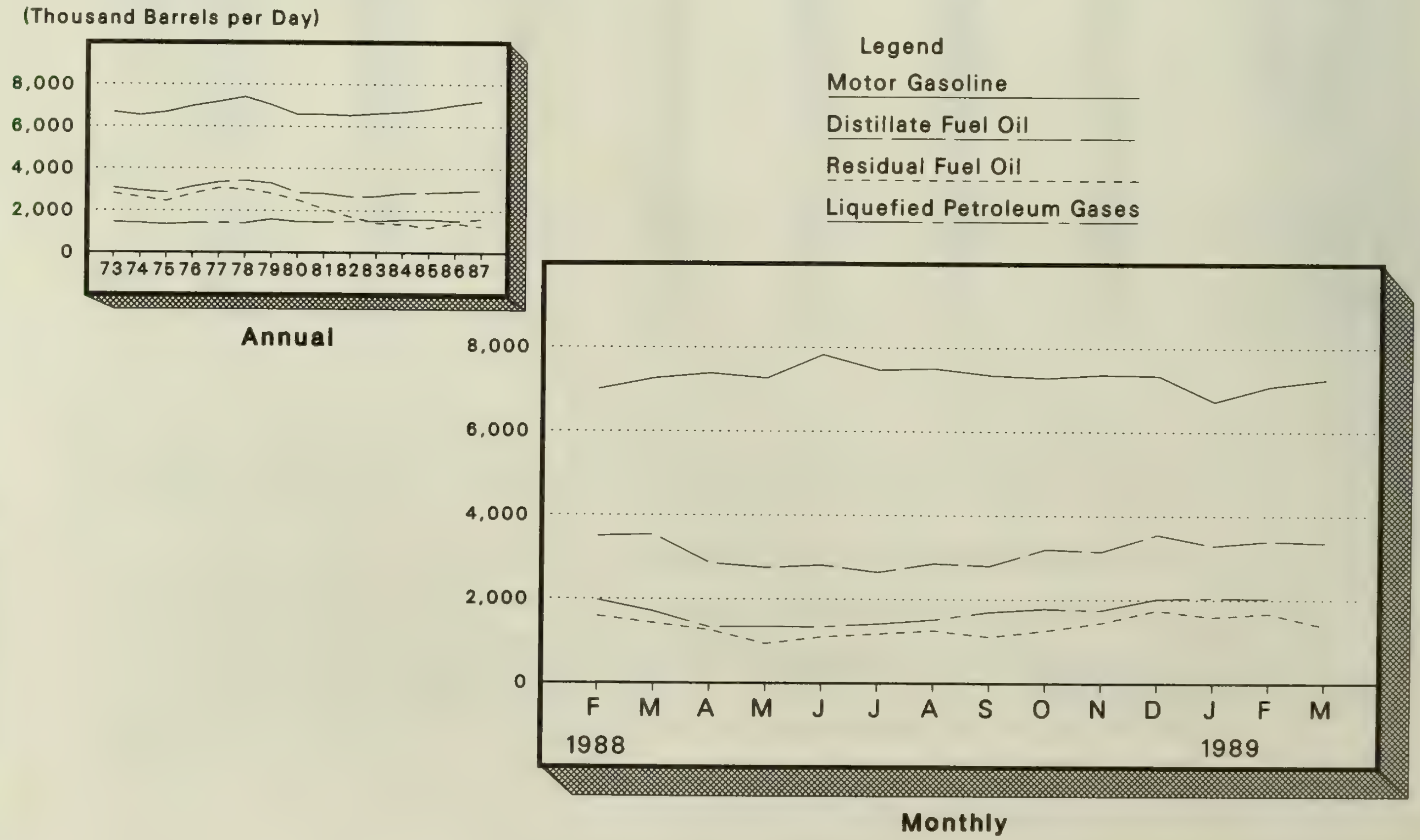
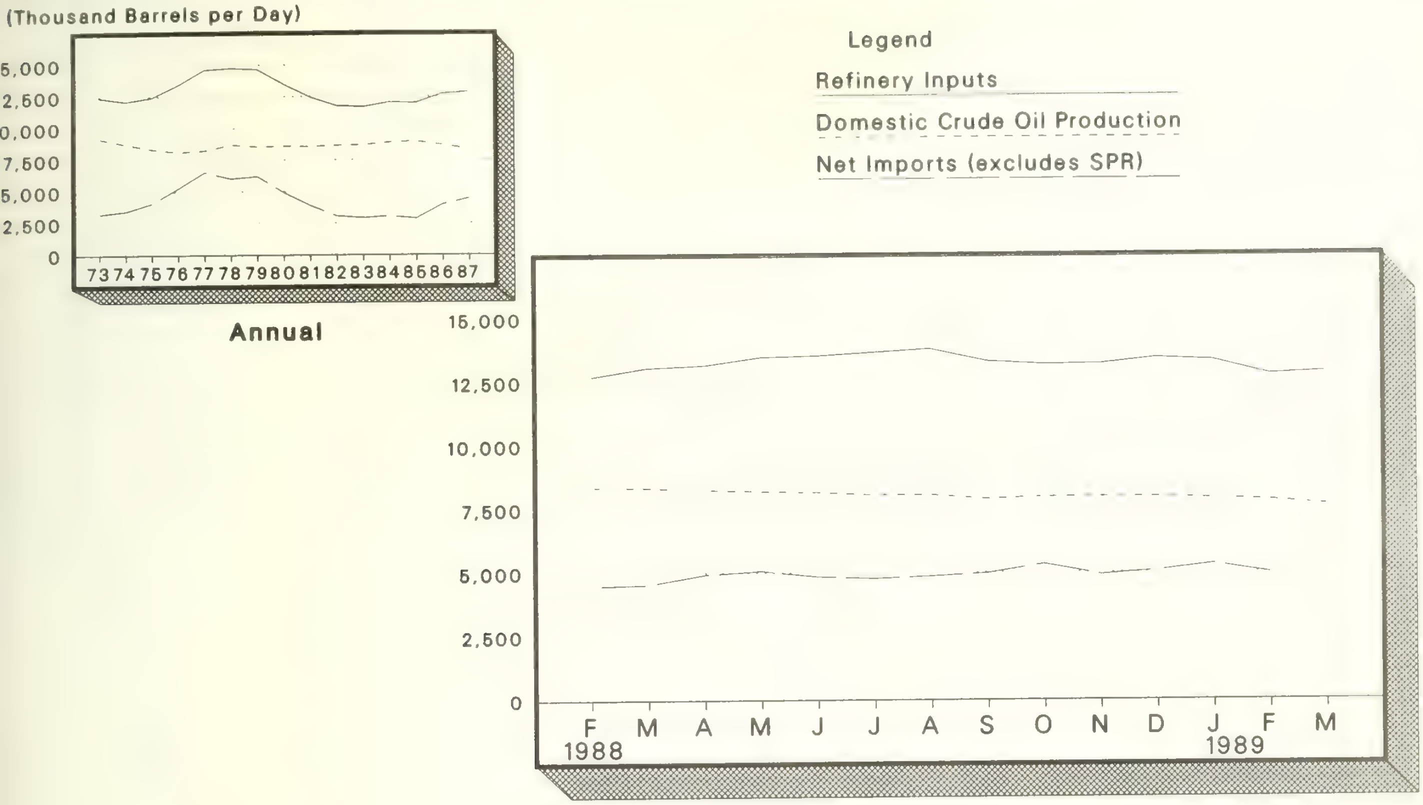


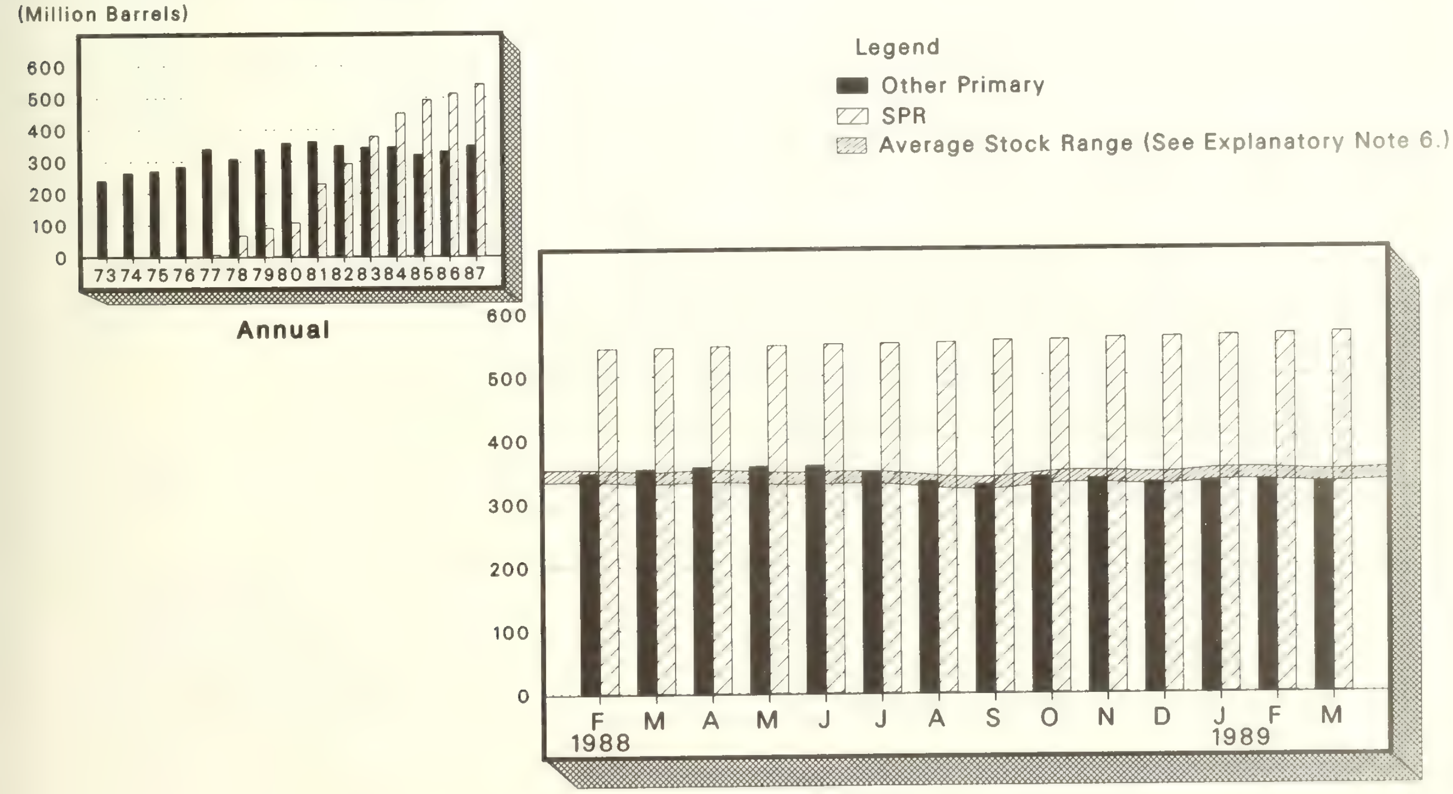
Figure S3. Crude Oil Supply and Disposition



Annual

Monthly

Figure S4. Crude Oil Ending Stocks



Annual

Monthly

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports					
		Total Domestic	Alaskan	Total	SPR[d]	Other	Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Thousand Barrels per Day							
1973	**Average**	**9,208**	**198**	**3,244**	**--**	**3,244**	**3**	**-19**	**13**
1974	**Average**	**8,774**	**193**	**3,477**	**--**	**3,477**	**-25**	**-15**	**13**
1975	**Average**	**8,375**	**191**	**4,105**	**--**	**4,105**	**17**	**-17**	**13**
1976	**Average**	**8,132**	**173**	**5,287**	**--**	**5,287**	**77**	**-18**	**15**
1977	**Average**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-6**	**-14**	**16**
1978	**Average**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-57**	**-14**	**16**
1979	**Average**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-11**	**-13**	**16**
1980	**Average**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**34**	**-13**	**15**
1981	**Average**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**83**	**-58**	**5**
1982	**Average**	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**71**	**-59**	**3**
1983	**Average**	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**114**	**--**	**2**
1984	**Average**	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**185**	**--**	**2**
1985	**Average**	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**145**	**--**	**1**
1986	**Average**	**8,680**	**1,867**	**4,178**	**48**	**4,130**	**139**	**--**	**(s)**
1987	January	8,480	2,019	4,385	92	4,293	-5	--	1
	February	8,389	1,853	3,866	44	3,822	382	--	(s)
	March	8,464	1,968	3,779	95	3,684	151	--	1
	April	8,498	1,990	4,132	57	4,076	120	--	(s)
	May	8,336	1,979	4,340	92	4,248	51	--	(s)
	June	8,279	1,930	4,807	64	4,743	434	--	(s)
	July	8,251	1,910	5,295	76	5,218	32	--	(s)
	August	8,210	1,908	5,510	63	5,447	177	--	(s)
	September	8,205	1,874	5,110	64	5,047	217	--	(s)
	October	8,364	1,986	5,142	57	5,085	-3	--	(s)
	November	8,397	2,068	5,013	97	4,916	115	--	(s)
	December	8,318	2,043	4,640	68	4,572	101	--	(s)
	Average	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**--**	**(s)**
1988	January	E 8,245	E 1,999	4,619	67	4,552	303	--	(s)
	February	E 8,376	E 2,070	4,692	49	4,643	-21	--	(s)
	March	E 8,347	E 2,086	4,788	23	4,766	419	--	(s)
	April	E 8,268	E 2,029	5,126	78	5,049	126	--	(s)
	May	E 8,203	E 2,016	5,234	22	5,213	251	--	(s)
	June	E 8,158	E 1,984	5,055	70	4,985	601	--	(s)
	July	E 8,059	E 1,960	5,006	42	4,965	548	--	(s)
	August	E 8,063	E 2,009	5,039	26	5,013	385	--	(s)
	September	E 7,900	E 2,020	5,183	84	5,099	313	--	(s)
	October	E 7,974	E 2,010	5,542	43	5,499	288	--	(s)
	November	E 7,985	E 2,027	5,017	89	4,928	393	--	(s)
	December	E 7,975	E 1,996	5,225	27	5,198	251	--	(s)
	Average	**E 8,129**	**E 2,017**	**5,045**	**51**	**4,994**	**323**	**--**	**(s)**
1989	January	E 7,913	E 1,958	5,521	65	5,456	209	--	(s)
	February*	RE 7,830	RE 1,962	R 5,263	R 84	R 5,178	R 1	--	(s)
	March**	PE 7,645	PE 1,726	E *5,132*	E *51*	E *5,081*	E *176*	--	E (s)
	3-Mo. Average	**PE 7,795**	**PE 1,879**	**E 5,307**	**E 66**	**E 5,240**	**E 133**	**--**	**E (s)**
1988	**3-Mo. Average**	**E 8,321**	**E 2,051**	**4,700**	**46**	**4,654**	**239**	**--**	**(s)**
1987	**3-Mo. Average**	**8,446**	**1,950**	**4,015**	**78**	**3,937**	**169**	**--**	**(s)**

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[a] Includes lease condensate.
[b] Stocks are totals as of end of period.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Strategic Petroleum Reserve.
[e] A balancing item.
[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels.

See Explanatory Notes 10, 11, and 12.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	**--**	-11	12,431	2	--	**242**	--	242
1974	**Average**	**--**	62	12,133	3	--	**265**	--	265
1975	**Average**	**--**	17	12,442	6	--	**271**	--	271
1976	**Average**	**--**	39	13,416	8	--	**285**	--	285
1977	**Average**	**20**	150	14,602	50	--	**348**	7	340
1978	**Average**	**163**	-84	14,739	158	--	**376**	67	309
1979	**Average**	**67**	81	14,648	235	--	**430**	91	339
1980	**Average**	**45**	52	13,481	287	--	[g] **466**	108	[g] 358
1981	**Average**	**336**	[g] -46	12,470	228	--	**594**	230	363
1982	**Average**	**174**	-38	11,774	236	--	[g] **644**	294	[g] 350
1983	**Average**	**234**	[g] -20	11,685	164	66	**723**	379	344
1984	**Average**	**195**	4	12,044	181	64	**796**	451	345
1985	**Average**	**117**	-67	12,002	204	60	**814**	493	321
1986	**Average**	**50**	28	12,716	154	49	**843**	512	331
1987	January	108	58	12,570	84	41	848	515	333
	February	64	-42	12,290	284	41	849	517	332
	March	106	19	12,081	150	39	852	520	332
	April	67	-116	12,512	247	41	851	522	329
	May	101	-137	12,653	69	42	850	525	325
	June	69	97	13,202	116	36	855	527	328
	July	91	-124	13,430	149	32	854	530	324
	August	63	281	13,380	141	31	864	532	332
	September	64	157	13,168	116	28	871	534	337
	October	57	604	12,733	84	25	892	536	356
	November	97	258	12,981	164	25	902	539	364
	December	68	-472	13,212	220	31	890	541	349
	Average	**80**	**49**	**12,854**	**151**	**34**	--	--	--
1988	January	67	-123	12,975	212	36	888	543	345
	February	49	81	12,715	149	52	892	544	348
	March	26	187	13,072	218	52	899	545	354
	April	77	117	13,167	117	42	904	547	357
	May	22	19	13,472	141	34	906	548	358
	June	70	43	13,528	141	32	909	550	359
	July	42	-312	13,663	191	29	901	551	349
	August	26	-521	13,797	155	30	885	552	333
	September	84	-157	13,309	122	37	883	555	328
	October	43	360	13,188	171	42	896	556	340
	November	89	-85	13,196	151	44	896	559	337
	December	27	-187	13,433	132	44	891	560	331
	Average	**52**	**-49**	**13,296**	**159**	**39**	--	--	--
1989	January	65	66	13,330	136	47	895	562	333
	February*	R 85	R -21	R 12,774	R 208	R 48	897	564	333
	March**	E *62*	E *-152*	E *12,865*	E 133	E 45	E *894*	E *566*	E *329*
	3-Mo. Average	E **70**	E **-36**	E **12,997**	E **158**	E **47**	--	--	--
1988	**3-Mo. Average**	**47**	**48**	**12,925**	**194**	**46**	--	--	--
1987	**3-Mo. Average**	**94**	**14**	**12,314**	**169**	**40**	--	--	--

Beginning in the January 1989 issue, the "stock withdrawal" data series were reformulated as the "stock change" data series. This reformulation changed the data series from supply items to disposition items. Numerical values remained the same in both series but their signs were reversed.

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indo-nesia	Iran	Nigeria	Vene-zuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	**Average**	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974	**Average**	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975	**Average**	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976	**Average**	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977	**Average**	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978	**Average**	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979	**Average**	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980	**Average**	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981	**Average**	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982	**Average**	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983	**Average**	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984	**Average**	**323**	**1**	**325**	**117**	**343**	**10**	**216**	**548**	**166**	**2,049**	**819**
1985	**Average**	**187**	**4**	**168**	**45**	**314**	**27**	**293**	**605**	**187**	**1,830**	**472**
1986	**Average**	**271**	**0**	**685**	**44**	**318**	**19**	**440**	**793**	**265**	**2,837**	**1,162**
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	**295**	**0**	**751**	**61**	**285**	**98**	**535**	**804**	**231**	**3,060**	**1,274**
1988	January	312	0	849	61	179	[f] 1	406	752	540	3,100	1,632
	February	358	0	1,265	79	148	0	501	830	214	3,394	1,883
	March	259	0	934	6	123	0	541	790	352	3,006	1,506
	April	342	0	931	48	166	0	651	812	385	3,335	1,613
	May	320	0	1,034	34	298	0	488	835	354	3,363	1,710
	June	262	0	923	11	158	0	703	839	495	3,391	1,603
	July	193	0	1,076	43	198	0	614	706	609	3,439	1,897
	August	253	0	1,161	0	153	0	557	809	669	3,603	2,024
	September	274	0	1,048	22	231	0	528	803	697	3,603	2,009
	October	326	0	1,244	16	216	0	686	758	539	3,785	2,056
	November	322	0	986	0	227	0	471	752	694	3,452	1,914
	December	316	0	1,289	19	181	0	667	664	524	3,661	2,085
	Average	**294**	**0**	**1,062**	**28**	**190**	**(s)**	**568**	**779**	**507**	**3,428**	**1,828**
1989	January	315	0	1,450	59	211	0	746	916	429	4,126	2,200
	February	310	0	1,290	17	292	0	542	767	593	3,812	2,126
	2-Mo. Average	**313**	**0**	**1,374**	**39**	**250**	**0**	**649**	**845**	**507**	**3,977**	**2,165**
1988	**2-Mo. Average**	**334**	**0**	**1,050**	**69**	**164**	**(s)**	**452**	**790**	**382**	**3,242**	**1,753**
1987	**2-Mo. Average**	**227**	**0**	**828**	**33**	**332**	**14**	**303**	**848**	**188**	**2,774**	**1,202**

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	**Average**	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	**Average**	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	**Average**	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	**Average**	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	**Average**	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	**Average**	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	**Average**	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	**Average**	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	**Average**	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	**Average**	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	**Average**	125	547	626	189	96	382	40	282	701	3,189	5,051
1984	**Average**	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	**Average**	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	**Average**	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	49	953	767	40	104	312	29	341	1,205	3,800	6,900
	February	58	995	699	21	93	313	16	200	1,206	3,601	6,995
	March	45	989	745	30	89	461	22	180	1,160	3,720	6,727
	April	12	975	674	31	82	581	29	193	1,137	3,714	7,050
	May	17	990	718	38	102	383	20	243	1,345	3,855	7,218
	June	25	1,022	765	19	112	232	13	212	1,094	3,494	6,885
	July	15	962	723	35	96	208	22	215	1,280	3,556	6,994
	August	12	1,003	692	20	97	104	7	172	1,465	3,571	7,174
	September	25	920	842	13	95	148	29	236	1,307	3,617	7,220
	October	11	939	743	17	98	447	21	234	1,370	3,881	7,666
	November	27	985	811	59	73	245	28	286	1,578	4,092	7,544
	December	40	978	701	47	125	292	28	372	1,437	4,019	7,680
	Average	28	976	740	31	97	311	22	241	1,299	3,744	7,172
1989	January	55	995	807	59	86	207	30	415	1,261	3,914	8,040
	February	24	991	756	44	92	221	24	368	1,577	4,097	7,909
	2-Mo. Average	40	993	783	52	89	214	27	392	1,411	4,001	7,978
1988	**2-Mo. Average**	54	973	734	31	99	312	23	273	1,205	3,704	6,946
1987	**2-Mo. Average**	58	791	690	27	113	325	28	312	1,060	3,404	6,178

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

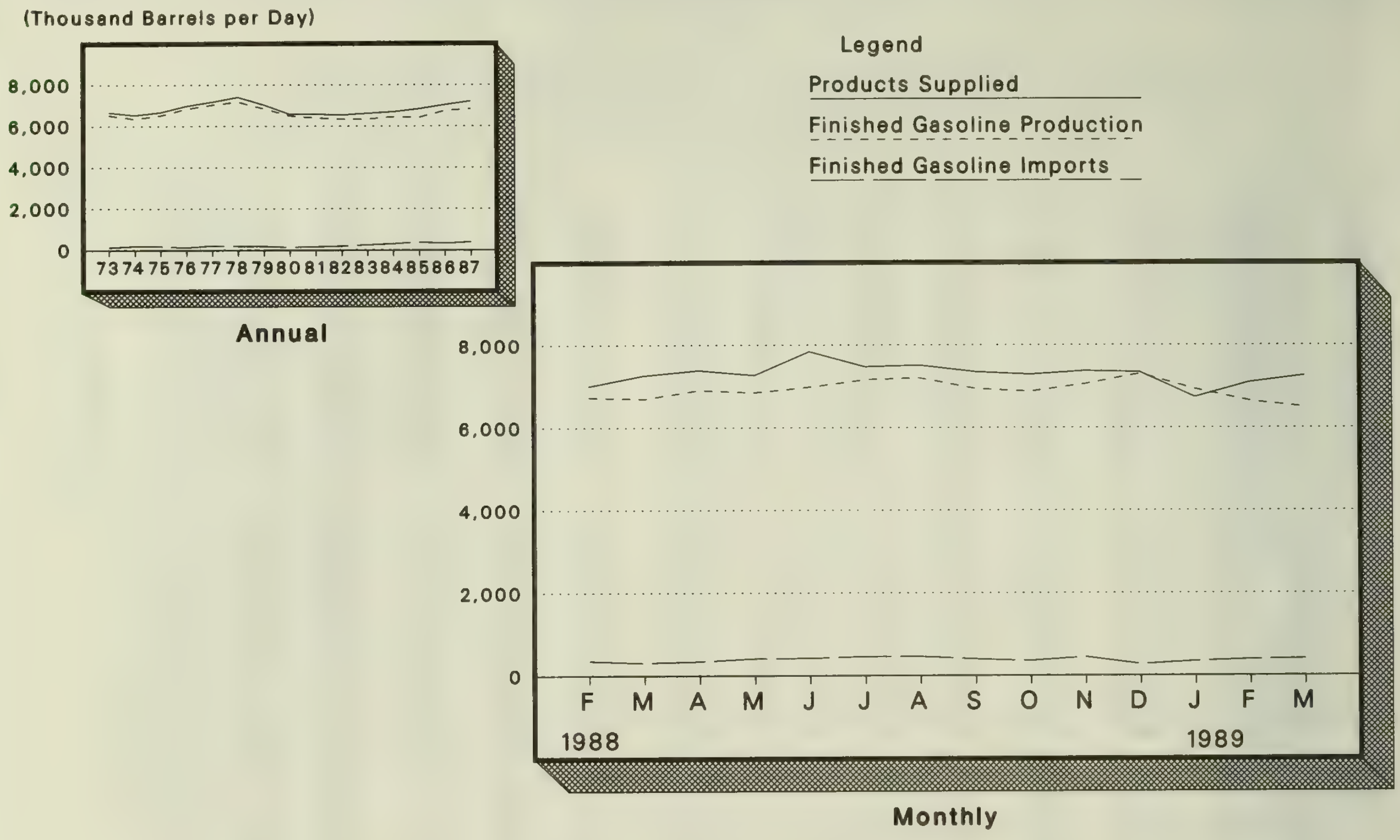
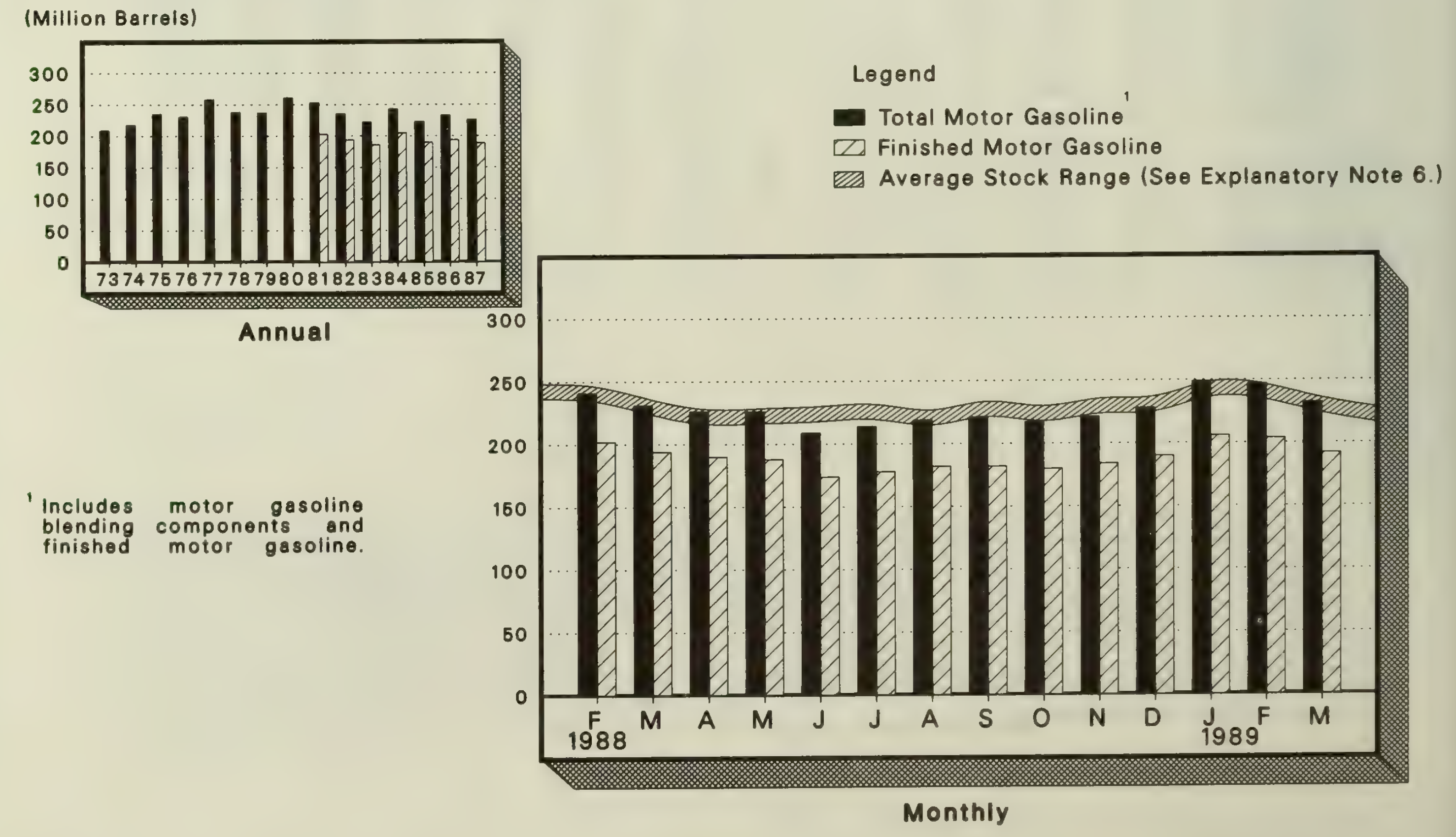


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	**6,535**	**134**	**-9**	**4**	**6,674**	**--**	**--**	**209**	--
1974	**Average**	**6,360**	**204**	**24**	**2**	**6,537**	**--**	**--**	[f] **218**	--
1975	**Average**	**6,520**	**184**	[f] **28**	**2**	**6,675**	**--**	**--**	**235**	--
1976	**Average**	**6,841**	**131**	**-10**	**3**	**6,978**	**--**	**--**	**231**	--
1977	**Average**	**7,033**	**217**	**72**	**2**	**7,177**	**1,976**	**27.5**	**258**	--
1978	**Average**	**7,169**	**190**	**-54**	**1**	**7,412**	**2,521**	**34.0**	**238**	--
1979	**Average**	**6,852**	**181**	**-2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	--
1980	**Average**	**6,506**	**140**	**66**	**1**	**6,579**	**3,067**	**46.6**	[f] **261**	--
1981	**Average[g]**	**6,405**	**157**	[f] **-28**	**2**	**6,588**	**3,264**	**49.5**	**253**	--
1982	**Average**	**6,338**	**197**	**-25**	**20**	**6,539**	**3,409**	**52.1**	[f] **235**	--
1983	**Average**	**6,340**	**247**	[f] **-45**	**10**	**6,622**	**3,647**	**55.1**	**222**	186
1984	**Average**	**6,453**	**299**	**54**	**5**	**6,693**	**3,987**	**59.6**	**243**	205
1985	**Average**	**6,419**	**381**	**-41**	**10**	**6,831**	**4,406**	**64.5**	**223**	190
1986	**Average**	**6,752**	**326**	**11**	**33**	**7,034**	**4,854**	**69.0**	**233**	194
1987	January	6,714	393	528	44	6,535	4,822	73.8	251	211
	February	6,365	309	-144	22	6,796	5,068	74.6	250	207
	March	6,569	364	-51	20	6,964	5,193	74.6	248	205
	April	6,850	374	-133	42	7,314	5,405	73.9	242	201
	May	6,991	354	-164	48	7,460	5,569	74.7	235	196
	June	7,089	385	-111	46	7,539	5,678	75.3	230	193
	July	7,043	452	-119	33	7,581	5,740	75.7	226	189
	August	6,933	396	-29	19	7,338	5,656	77.1	226	188
	September	6,921	421	107	30	7,205	5,536	76.8	230	191
	October	6,668	356	-302	21	7,305	5,636	77.1	218	182
	November	6,907	484	208	32	7,151	5,589	78.2	225	188
	December	7,015	320	24	59	7,251	5,715	78.8	226	189
	Average	**6,841**	**384**	**-15**	**35**	**7,206**	**5,470**	**75.9**	--	--
1988	January	6,723	324	361	8	6,679	5,392	80.7	239	200
	February	6,736	365	78	18	7,004	5,571	79.5	241	202
	March	6,695	318	-271	18	7,265	5,845	80.4	231	194
	April	6,906	349	-148	18	7,384	5,946	80.5	226	190
	May	6,847	415	-34	28	7,269	5,813	80.0	226	188
	June	6,983	424	-490	59	7,838	6,356	81.1	209	174
	July	7,159	461	135	12	7,473	6,126	82.0	214	178
	August	7,204	465	142	15	7,511	6,191	82.4	219	182
	September	6,948	403	-14	16	7,349	6,066	82.5	221	182
	October	6,875	363	-63	13	7,287	5,992	82.2	217	180
	November	7,057	451	124	15	7,369	6,149	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,954**	**384**	**2**	**22**	**7,314**	**5,973**	**81.7**	--	--
1989	January	6,935	349	519	33	6,732	5,753	85.4	249	206
	February*	R 6,648	R 392	R -79	R 24	R 7,095	R 6,119	R 86.3	247	204
	March**	E *6,498*	E *410*	E *-391*	E *42*	E *7,258*	E *6,275*	E *86.5*	E *232*	E *192*
	3-Mo. Average	E **6,695**	E **383**	E **19**	E **33**	E **7,026**	E **6,047**	E **86.1**	--	--
1988	**3-Mo. Average**	**6,718**	**335**	**56**	**15**	**6,982**	**5,604**	**80.3**	--	--
1987	**3-Mo. Average**	**6,555**	**357**	**119**	**29**	**6,764**	**5,026**	**74.3**	--	--

Beginning in the January 1989 issue, the "stock withdrawal" data series was reformulated as the "stock change" data series. This reformulation changed the data series from a supply item to a disposition item. Numerical values remained the same in both series but their signs were reversed.

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[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.
[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 3.
** Italics denote estimates based upon preliminary data. See Explanatory Note 2.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

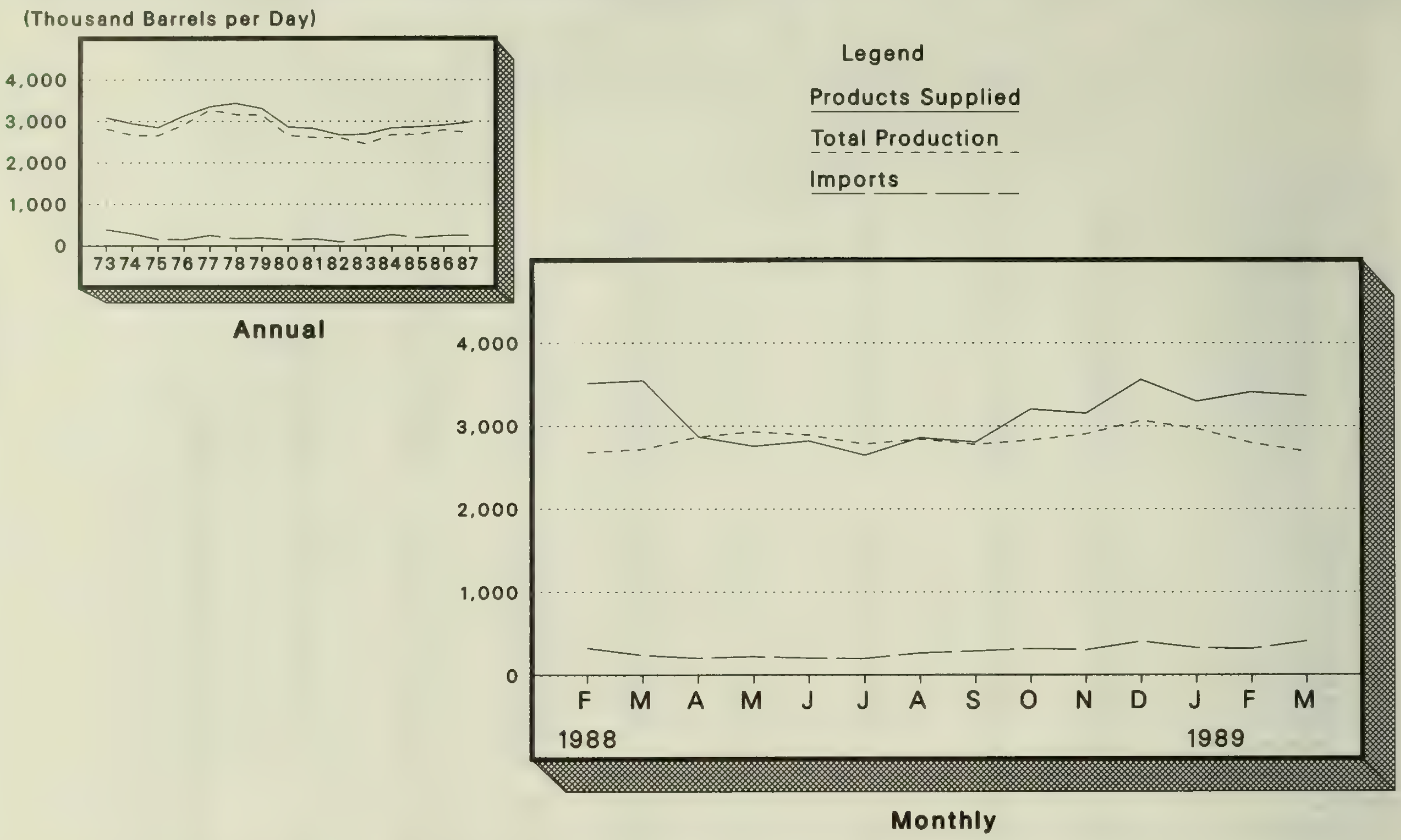

Figure S8. Distillate Fuel Oil Ending Stocks

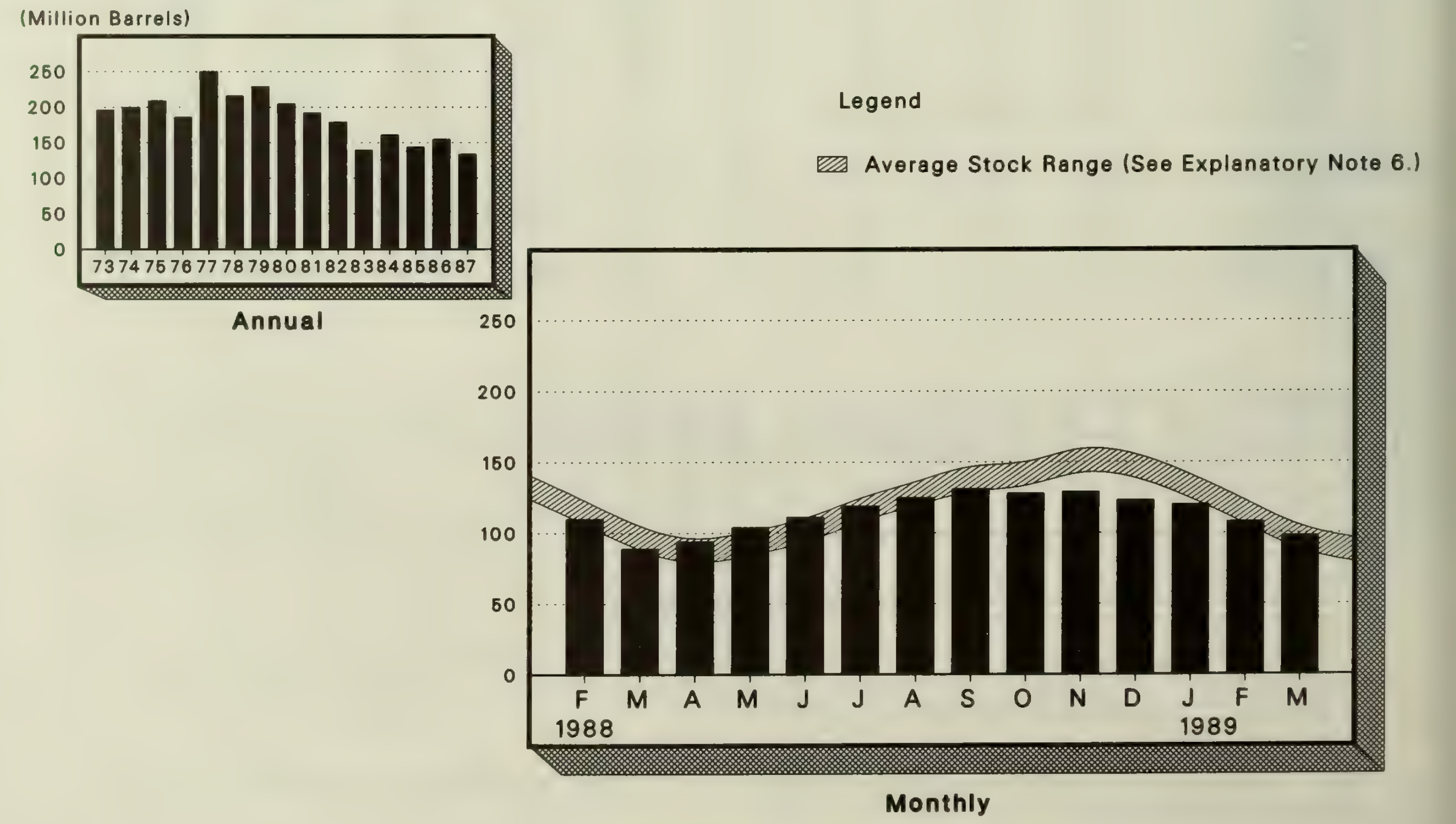

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**
1974	**Average**	**2,669**	**289**	**2**	**9**	**2**	**2,948**	[d] **200**
1975	**Average**	**2,654**	**155**	**2**	[d] **-40**	**1**	**2,851**	**209**
1976	**Average**	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**
1977	**Average**	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**
1978	**Average**	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**
1979	**Average**	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**
1980	**Average**	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	[d] **205**
1981	**Average[e]**	**2,613**	**173**	**10**	[d] **-38**	**5**	**2,829**	**192**
1982	**Average**	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	[d] **179**
1983	**Average**	**2,456**	**174**	**--**	[d] **-124**	**64**	**2,690**	**140**
1984	**Average**	**2,681**	**272**	**--**	**57**	**51**	**2,845**	**161**
1985	**Average**	**2,687**	**200**	**--**	**-48**	**67**	**2,868**	**144**
1986	**Average**	**2,798**	**247**	**--**	**31**	**100**	**2,914**	**155**
1987	January	2,759	222	--	-444	115	3,310	141
	February	2,556	253	--	-629	93	3,345	124
	March	2,421	297	--	-464	67	3,116	109
	April	2,553	192	--	-300	53	2,991	100
	May	2,563	203	--	31	51	2,684	101
	June	2,689	265	--	104	61	2,790	104
	July	2,700	381	--	329	38	2,713	115
	August	2,706	222	--	327	47	2,553	125
	September	2,748	222	--	68	64	2,838	127
	October	2,780	237	--	-187	53	3,151	121
	November	3,035	187	--	234	56	2,932	128
	December	3,242	378	--	209	92	3,318	134
	Average	**2,731**	**255**	**--**	**-56**	**66**	**2,976**	**--**
1988	January	3,008	355	--	-236	82	3,517	127
	February	2,683	330	--	-604	107	3,511	110
	March	2,720	243	--	-656	74	3,544	89
	April	2,869	208	--	166	42	2,870	94
	May	2,931	228	--	328	74	2,757	104
	June	2,893	209	--	207	76	2,820	111
	July	2,783	205	--	283	58	2,647	119
	August	2,844	270	--	186	70	2,860	125
	September	2,779	292	--	193	72	2,806	131
	October	2,830	324	--	-98	48	3,204	128
	November	2,905	308	--	26	34	3,153	129
	December	3,068	409	--	-170	87	3,560	123
	Average	**2,860**	**282**	**--**	**-30**	**69**	**3,104**	**--**
1989	January	2,973	331	--	-103	110	3,296	120
	February*	R 2,798	R 322	--	R -455	R 164	R 3,411	R 108
	March**	E *2,696*	E *410*	--	E *-352*	E *93*	E *3,365*	E *98*
	3-Mo. Average	E **2,823**	E **355**	**--**	E **-298**	E **121**	E **3,356**	**--**
1988	**3-Mo. Average**	**2,806**	**309**	**--**	**-496**	**87**	**3,524**	**--**
1987	**3-Mo. Average**	**2,580**	**258**	**--**	**-509**	**91**	**3,254**	**--**

Beginning in the January 1989 issue, the "stock withdrawal" data series was reformulated as the "stock change" data series. This reformulation changed the data series from a supply item to a disposition item. Numerical values remained the same in both series but their signs were reversed.

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 6.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

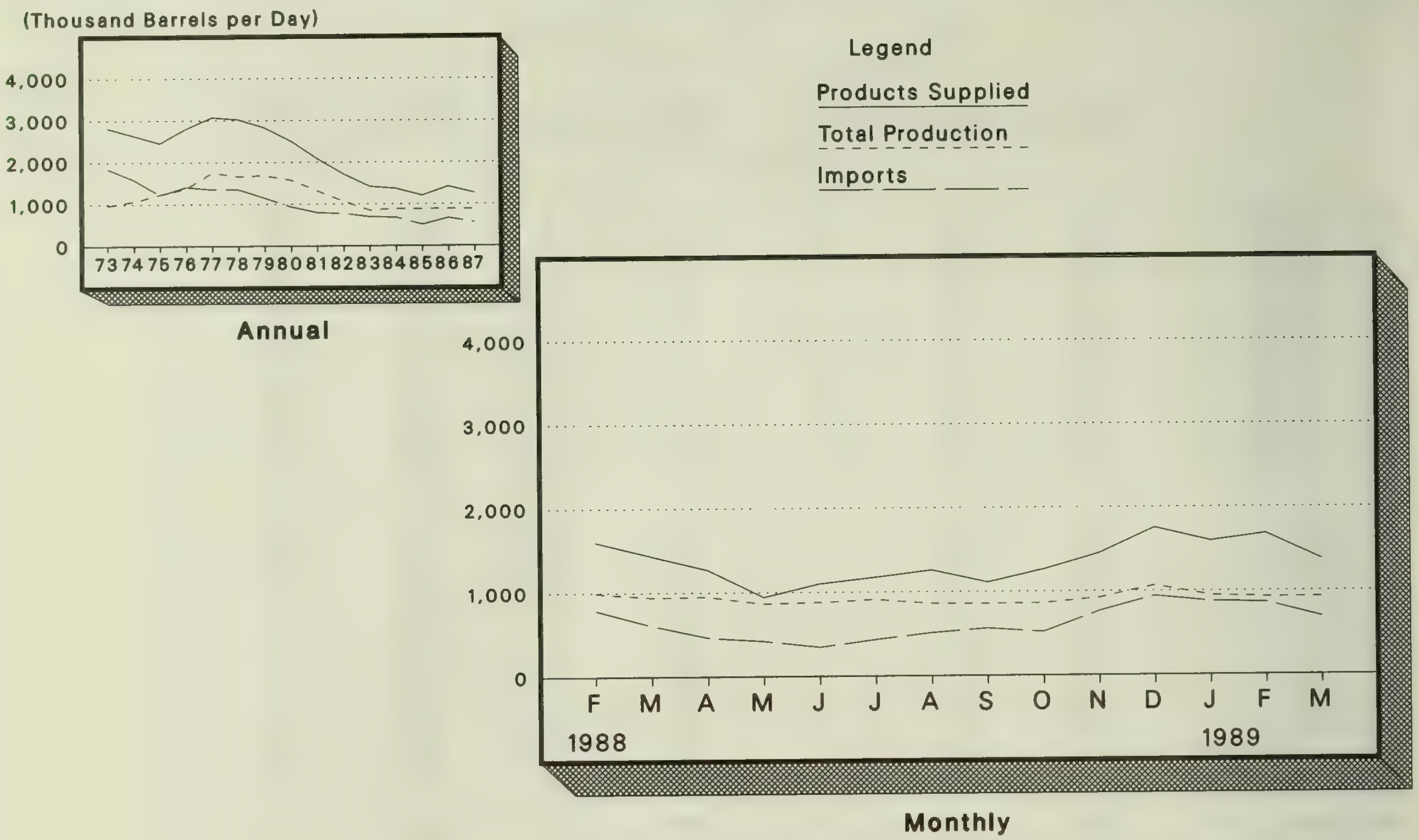

Figure S10. Residual Fuel Oil Ending Stocks

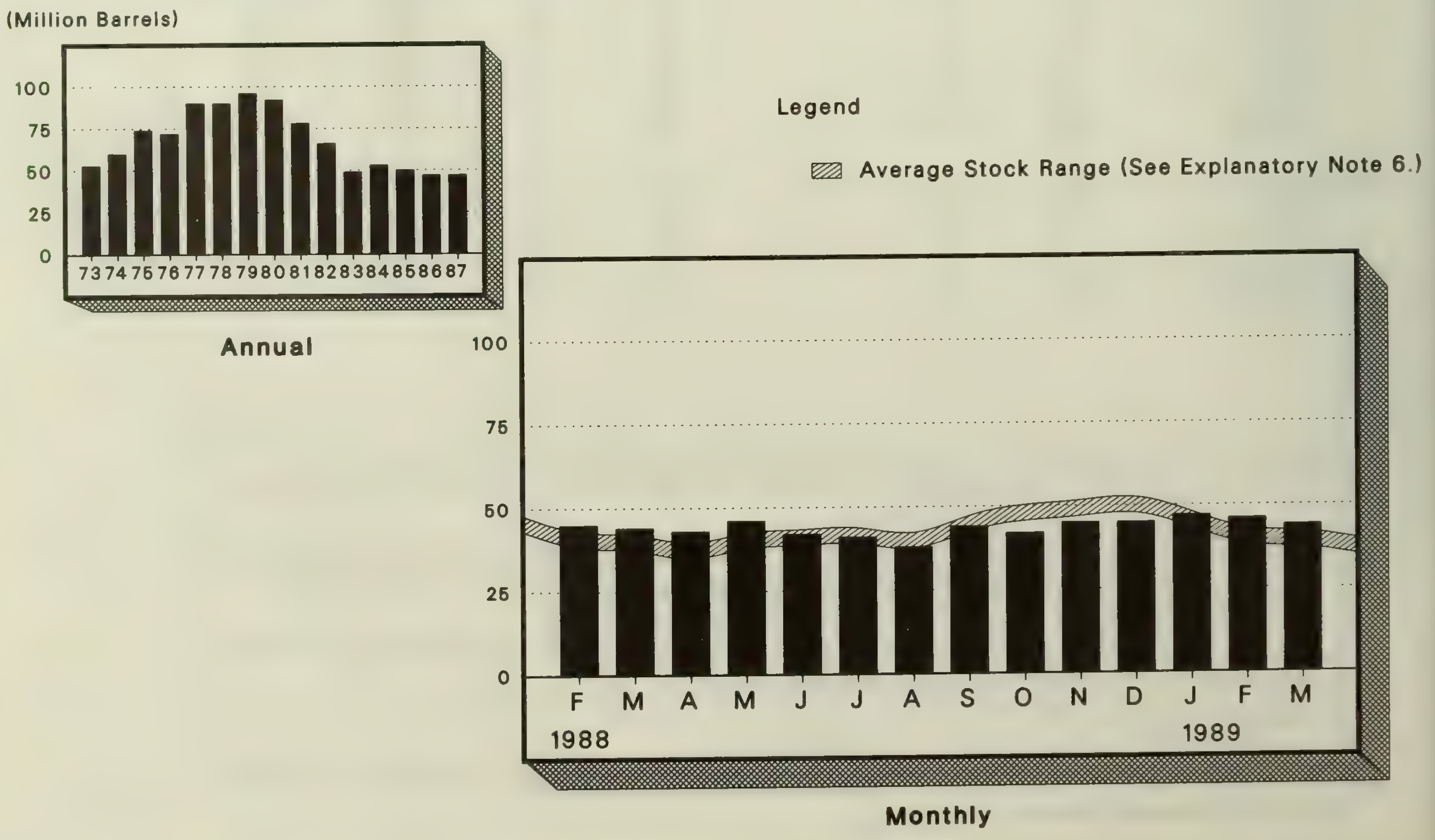

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	971	1,853	17	-5	23	2,822	53
1974	**Average**	1,070	1,587	13	17	14	2,639	[d] 60
1975	**Average**	1,235	1,223	15	[d] -2	15	2,462	74
1976	**Average**	1,377	1,413	17	-5	12	2,801	72
1977	**Average**	1,754	1,359	13	48	6	3,071	90
1978	**Average**	1,667	1,355	13	1	13	3,023	90
1979	**Average**	1,687	1,151	12	15	9	2,826	96
1980	**Average**	1,580	939	12	-10	33	2,508	[d] 92
1981	**Average**[e]	1,321	800	48	[d] -37	118	2,088	78
1982	**Average**	1,070	776	48	-32	209	1,716	[d] 66
1983	**Average**	852	699	--	[d] -55	185	1,421	49
1984	**Average**	891	681	--	12	190	1,369	53
1985	**Average**	882	510	--	-7	197	1,202	50
1986	**Average**	889	669	--	-8	147	1,418	47
1987	January	920	701	--	-81	198	1,504	45
	February	825	668	--	-243	221	1,515	38
	March	863	559	--	38	150	1,234	39
	April	831	476	--	-114	239	1,182	36
	May	813	505	--	145	144	1,029	40
	June	864	481	--	33	105	1,207	41
	July	901	721	--	108	175	1,339	45
	August	882	512	--	32	185	1,176	46
	September	904	526	--	-42	177	1,296	44
	October	887	414	--	39	194	1,069	46
	November	928	568	--	145	146	1,205	50
	December	1,001	650	--	-83	300	1,434	47
	Average	885	565	--	(s)	186	1,264	--
1988	January	1,009	737	--	-23	190	1,578	47
	February	997	792	--	-40	229	1,601	45
	March	944	610	--	-45	165	1,434	44
	April	951	465	--	-27	170	1,272	43
	May	866	423	--	81	263	945	46
	June	881	349	--	-121	249	1,102	42
	July	913	436	--	-34	206	1,177	41
	August	863	515	--	-104	225	1,258	38
	September	859	566	--	213	100	1,112	44
	October	863	522	--	-59	181	1,263	42
	November	923	765	--	89	146	1,453	45
	December	1,067	942	--	-17	271	1,756	45
	Average	928	593	--	-8	200	1,329	--
1989	January	948	877	--	78	151	1,596	47
	February*	R 929	R 863	--	R -35	R 146	R 1,681	R 46
	March**	E *929*	E *691*	--	E *2*	E 240	E *1,378*	E *44*
	3-Mo. Average	E 936	E 809	--	E 17	E 180	E 1,547	--
1988	**3-Mo. Average**	983	711	--	-36	194	1,536	--
1987	**3-Mo. Average**	871	642	--	-90	189	1,414	--

Beginning in the January 1989 issue, the "stock withdrawal" data series was reformulated as the "stock change" data series. This reformulation changed the data series from a supply item to a disposition item. Numerical values remained the same in both series but their signs were reversed.

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 6.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 10.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 11.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 2.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

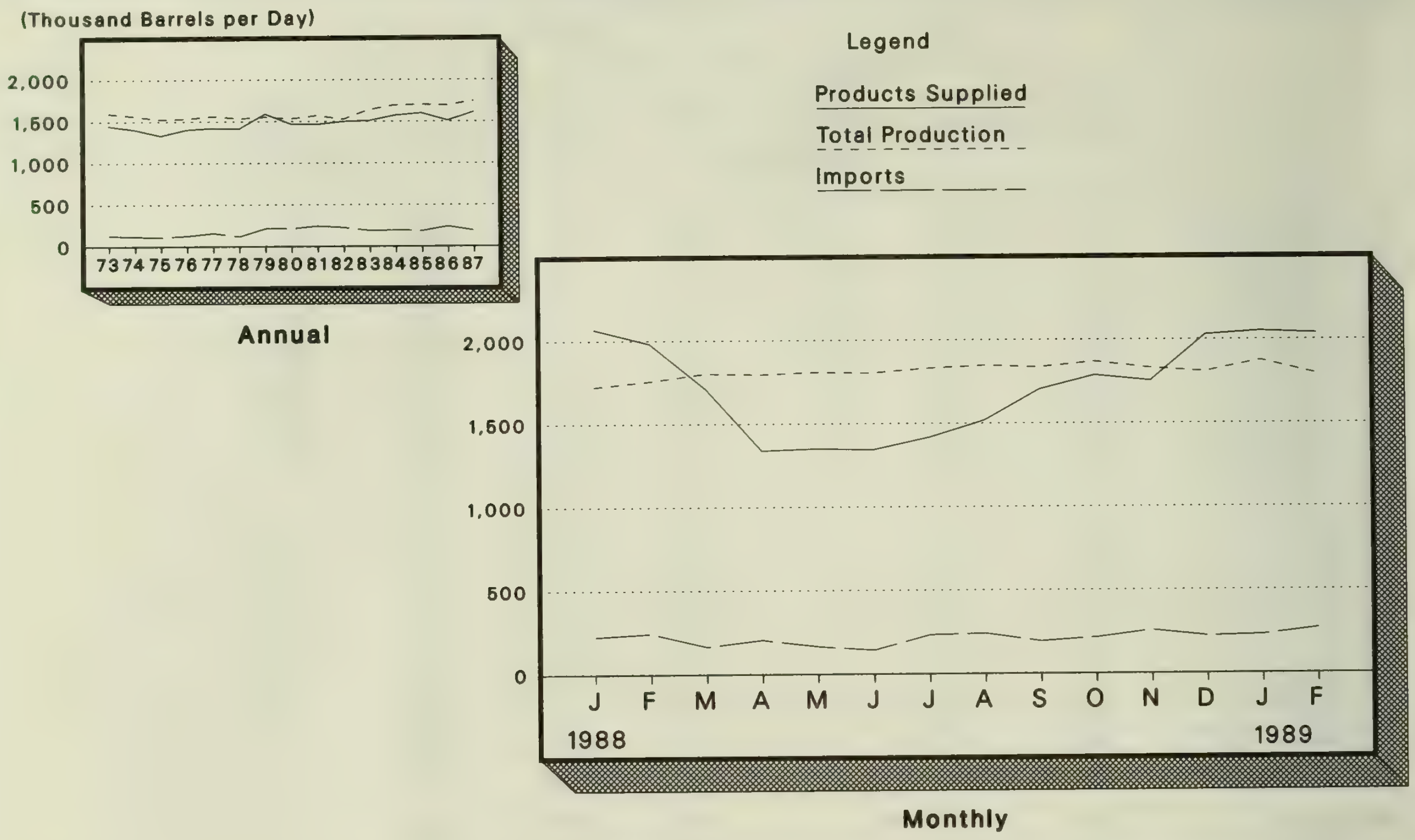

Figure S12. Liquefied Petroleum Gases Ending Stocks

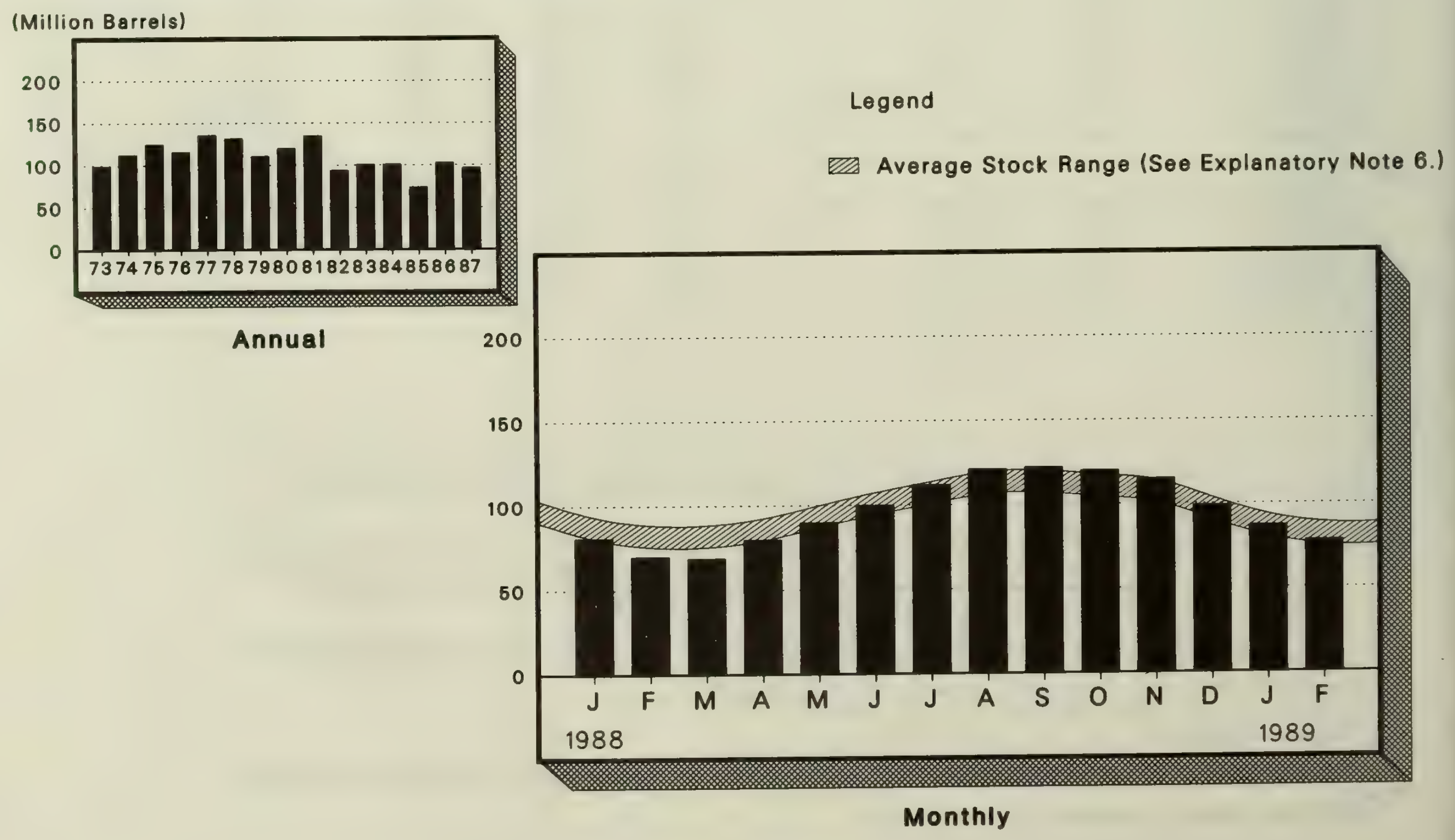

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**1,600**	**132**	35	**220**	27	**1,449**	99
1974	**Average**	**1,565**	**123**	38	**220**	25	**1,406**	[d] 113
1975	**Average**	**1,527**	**112**	[d] 35	**246**	26	**1,333**	125
1976	**Average**	**1,535**	**130**	-24	**260**	25	**1,404**	116
1977	**Average**	**1,566**	**161**	55	**233**	18	**1,422**	136
1978	**Average**	**1,537**	**123**	-12	**239**	20	**1,413**	132
1979	**Average**	**1,556**	**217**	-70	**236**	15	**1,592**	111
1980	**Average**	**1,535**	**216**	27	**233**	21	**1,469**	[d] 120
1981	**Average**	**1,571**	**244**	[d] 18	**289**	42	**1,466**	135
1982	**Average**	**1,528**	**226**	-111	**300**	65	**1,499**	[d] 94
1983	**Average**	**1,642**	**190**	[d] -4	**253**	73	**1,509**	[d] 101
1984	**Average**	**1,697**	**195**	[d] -19	**291**	48	**1,572**	101
1985	**Average**	**1,704**	**187**	-75	**304**	62	**1,599**	74
1986	**Average**	**1,695**	**242**	80	**302**	42	**1,512**	103
1987	January	1,751	183	-500	419	43	1,971	87
	February	1,762	201	-205	341	38	1,789	81
	March	1,761	132	10	282	52	1,550	82
	April	1,775	149	121	274	36	1,493	85
	May	1,732	142	283	269	34	1,288	94
	June	1,732	119	175	255	22	1,400	99
	July	1,764	190	145	244	30	1,534	104
	August	1,717	198	259	252	33	1,372	112
	September	1,736	288	81	266	56	1,622	114
	October	1,736	233	-59	294	23	1,711	113
	November	1,763	233	-129	356	35	1,735	109
	December	1,753	214	-372	395	56	1,887	97
	Average	**1,748**	**190**	**-15**	**304**	**38**	**1,612**	--
1988	January	1,723	226	-529	366	44	2,069	81
	February	1,757	245	-364	336	47	1,982	70
	March	1,802	165	-45	266	36	1,710	69
	April	1,796	205	362	256	43	1,339	80
	May	1,809	165	333	253	37	1,350	90
	June	1,804	144	333	234	38	1,343	100
	July	1,831	233	384	228	35	1,416	112
	August	1,848	241	281	241	50	1,517	121
	September	1,837	194	34	251	43	1,704	122
	October	1,869	216	-55	296	56	1,787	120
	November	1,831	258	-161	425	71	1,753	115
	December	1,809	222	-523	441	85	2,029	99
	Average	**1,810**	**209**	**5**	**299**	**49**	**1,666**	--
1989	January	1,876	230	-385	421	19	2,051	87
	February*	1,795	269	-337	331	31	2,038	78
	2-Mo. Average	**1,837**	**249**	**-362**	**378**	**25**	**2,045**	--
1988	**2-Mo. Average**	**1,740**	**235**	**-449**	**352**	**45**	**2,027**	--
1987	**2-Mo. Average**	**1,756**	**192**	**-360**	**382**	**41**	**1,885**	--

Beginning in the January 1989 issue, the "stock withdrawal" data series was reformulated as the "stock change" data series. This reformulation changed the data series from a supply item to a disposition item. Numerical values remained the same in both series but their signs were reversed.

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 10.

* See Explanatory Note 3.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**3,693**	**502**	**9**	**750**	**166**	**3,270**	**208**
1974	**Average**	**3,558**	**432**	**28**	**665**	**174**	**3,123**	**[d] 218**
1975	**Average**	**3,418**	**277**	**[d] -4**	**537**	**160**	**3,002**	**219**
1976	**Average**	**3,643**	**206**	**5**	**524**	**175**	**3,145**	**220**
1977	**Average**	**3,912**	**205**	**27**	**514**	**165**	**3,410**	**230**
1978	**Average**	**4,046**	**166**	**-14**	**492**	**167**	**3,568**	**225**
1979	**Average**	**4,153**	**195**	**37**	**352**	**209**	**3,749**	**238**
1980	**Average**	**3,956**	**210**	**23**	**311**	**198**	**3,634**	**[d] 247**
1981	**Average**	**3,739**	**226**	**[d] -46**	**723**	**199**	**3,088**	**282**
1982	**Average**	**3,453**	**334**	**-80**	**787**	**211**	**2,869**	**[d] 253**
1983	**Average**	**3,460**	**411**	**[d] -6**	**712**	**242**	**2,923**	**[d] 256**
1984	**Average**	**3,632**	**565**	**[d] -23**	**791**	**245**	**3,183**	**240**
1985	**Average**	**3,721**	**588**	**17**	**886**	**240**	**3,166**	**246**
1986	**Average**	**3,997**	**561**	**10**	**888**	**308**	**3,353**	**250**
1987	January	3,852	469	121	659	219	3,323	254
	February	3,796	687	389	352	320	3,422	265
	March	3,766	663	128	757	281	3,262	269
	April	3,933	589	-107	872	254	3,502	266
	May	4,049	529	-178	913	320	3,523	260
	June	4,203	712	-158	896	320	3,857	255
	July	4,363	550	-91	835	256	3,913	253
	August	4,340	616	148	693	238	3,876	257
	September	4,350	611	24	903	353	3,681	258
	October	4,223	686	-14	971	272	3,680	258
	November	4,010	583	20	975	305	3,294	258
	December	4,050	633	-261	1,091	330	3,523	250
	Average	**4,080**	**610**	**-1**	**829**	**289**	**3,572**	**--**
1988	January	3,988	639	143	785	354	3,345	254
	February	3,941	570	35	726	318	3,433	255
	March	4,175	603	269	656	328	3,525	264
	April	4,052	697	97	832	288	3,533	267
	May	4,097	752	341	471	274	3,763	277
	June	4,278	703	-76	759	379	3,920	275
	July	4,333	652	20	824	329	3,812	276
	August	4,440	644	-201	782	302	4,200	269
	September	4,259	582	-129	841	323	3,807	266
	October	4,193	699	-42	768	268	3,898	264
	November	4,079	745	59	808	303	3,655	266
	December	4,169	604	-444	1,129	392	3,696	252
	Average	**4,168**	**658**	**6**	**782**	**321**	**3,717**	**--**
1989	January	4,185	732	402	714	311	3,489	265
	February*	3,924	802	201	731	302	3,492	270
	2-Mo. Average	**4,061**	**765**	**307**	**722**	**307**	**3,490**	**--**
1988	**2-Mo. Average**	**3,965**	**606**	**91**	**756**	**336**	**3,388**	**--**
1987	**2-Mo. Average**	**3,826**	**572**	**248**	**513**	**267**	**3,370**	**--**

Beginning in the January 1989 issue, the "stock withdrawal" data series was reformulated as the "stock change" data series. This reformulation changed the data series from a supply item to a disposition item. Numerical values remained the same in both series but their signs were reversed.

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 10.

* See Explanatory Note 3.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1987: EIA, *Petroleum Supply Annual.*

4. January 1988 through February 1989: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 3.)

5. March 1989: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.)

6. January 1988 through March 1989: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 7.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 3 and 6).

Detailed Statistics

At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *Petroleum Supply Monthly*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication in May 1989. Revisions for 1987 data are not planned.

Table 1. U.S. Petroleum Balance, February 1989

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
(1)	Alaska	E 54,939	E 1,962	E 115,631	E 1,960
(2)	Lower 48 States	E 164,306	E 5,868	E 348,927	E 5,914
(3)	**Total U.S.**	E **219,245**	E **7,830**	E **464,558**	E **7,874**
	Net Imports				
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	144,991	5,178	314,137	5,324
(5)	SPR Imports	2,365	84	4,375	74
(6)	Exports	5,838	208	10,059	170
(7)	**Imports (Net Including SPR)**	**141,518**	**5,054**	**308,453**	**5,228**
	Other Sources				
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-2,369	-85	-4,373	-74
(9)	Other Stock Change (Withdrawal (+), Addition (-))	593	21	-1,448	-25
(10)	Product Supplied and Losses	-1,351	-48	-2,821	-48
(11)	Unaccounted for[a]	34	1	6,527	111
(12)	**Total Other Sources**	**-3,093**	**-110**	**-2,115**	-36
(13)	**Crude Input to Refineries**	**357,670**	**12,774**	**770,896**	13,066
	(13) = (3) + (7) + (12)				
	Natural Gas Liquids (NGL)				
(14)	Field Production	44,839	1,601	96,085	1,629
(15)	Net Imports[b]	73	3	78	1
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	-113	-4	743	13
(17)	**Total NGL Supply**	**44,799**	**1,600**	**96,906**	**1,642**
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Change (Withdrawal (+), Addition (-))	-2,919	-104	-9,670	-164
(19)	Imports	13,733	490	25,364	430
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,053	38	3,268	55
(21)	Refinery Processing Gain[a]	17,355	620	39,897	676
(22)	Crude Oil Product Supplied	1,344	48	2,807	48
(23)	**Total Other Liquids**	**30,566**	**1,092**	**61,666**	**1,045**
	(23) = (18) through (22)				
(24)	**Total Production of Products**	**433,035**	**15,466**	**929,468**	**15,754**
	(24) = (13) + (17) + (23)				
	Net Imports of Refined Products				
(25)	Imports (Gross)	60,111	2,147	126,234	2,140
(26)	Exports	18,473	660	37,494	635
(27)	**Imports (Net)**	**41,638**	**1,487**	**88,740**	**1,504**
(28)	**Total New Supply of Products**	**474,673**	**16,953**	**1,018,208**	**17,258**
	(28) = (24) + (27)				
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	22,751	813	12,768	216
(30)	**Total Petroleum Products Supplied for Domestic Use**	**497,424**	**17,765**	**1,030,976**	**17,474**
	(30) = (28) + (29)				
(31)	Finished Motor Gasoline	198,649	7,095	407,356	6,904
(32)	Distillate Fuel Oil	95,515	3,411	197,687	3,351
(33)	Residual Fuel Oil	47,075	1,681	96,544	1,636
(34)	Liquefied Petroleum Gases	57,072	2,038	120,664	2,045
(35)	Other[c]	97,769	3,492	205,918	3,490
(36)	Crude Oil	1,344	48	2,807	48
(37)	**Total Products Supplied**	**497,424**	**17,765**	**1,030,976**	**17,474**
	(37) = (31) through (36)				
	Ending Stocks, All Oils				
(38)	Crude Oil (Excluding SPR)	332,698	--	332,698	--
(39)	Strategic Petroleum Reserve	563,888	--	563,888	--
(40)	Finished Motor Gasoline	203,568	--	203,568	--
(41)	Distillate Fuel Oil	107,549	--	107,549	--
(42)	Residual Fuel Oil	45,982	--	45,982	--
(43)	Liquefied Petroleum Gases	77,535	--	77,535	--
(44)	Other[c]	270,354	--	270,354	--
(45)	**Total Stocks**	**1,601,574**	--	**1,601,574**	--
	(45) = (38) through (44)				

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[a] A balancing item.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 219,245	--	147,356	34	1,776	7	357,670	5,838	1,344	896,586
Natural Gas Liquids and LRGs	44,839	13,853	7,788	--	-9,310	--	14,689	1,057	60,044	83,561
Pentanes Plus	8,446	--	257	--	113	--	5,434	184	2,972	6,026
Liquefied Petroleum Gases	36,393	13,853	7,531	--	-9,423	--	9,255	873	57,072	77,535
Ethane/Ethylene	14,323	362	322	--	-33	--	127	6	14,907	17,520
Propane/Propylene	13,537	10,471	3,956	--	-8,745	--	280	721	35,708	36,503
Normal Butane/Butylene	4,186	2,872	2,961	--	-940	--	5,199	147	5,613	15,685
Isobutane	4,347	148	292	--	295	--	3,649	0	843	7,827
Other Liquids	1,053	--	13,733	--	2,919	--	15,024	0	-3,157	148,819
Other Hydrocarbons/Alcohol	1,053	--	0	--	-73	--	1,126	0	0	420
Unfinished Oils	--	--	10,987	--	2,313	--	12,825	0	-4,151	104,703
Motor Gasoline Blend. Comp.	--	--	2,746	--	750	--	1,002	0	994	43,529
Aviation Gasoline Blend. Comp.	--	--	0	--	-71	--	71	0	0	167
Finished Petroleum Products	--	390,885	52,580	--	-13,328	--	--	17,600	439,193	472,608
Finished Motor Gasoline	--	186,145	10,964	--	-2,202	--	--	662	198,649	203,568
Leaded	--	25,163	136	--	-2,057	--	--	53	27,303	39,479
Unleaded	--	160,982	10,828	--	-145	--	--	609	171,346	164,089
Finished Aviation Gasoline	--	571	43	--	157	--	--	0	457	2,153
Jet Fuel	--	39,350	3,348	--	-740	--	--	594	42,844	43,747
Naphtha-Type Jet Fuel	--	5,316	68	--	-245	--	--	28	5,601	6,379
Kerosene-Type Jet Fuel	--	34,034	3,280	--	-495	--	--	566	37,243	37,368
Kerosene	--	1,951	148	--	-1,473	--	--	5	3,567	5,871
Distillate Fuel Oil	--	78,352	9,003	--	-12,741	--	--	4,581	95,515	107,549
Residual Fuel Oil	--	26,019	24,159	--	-984	--	--	4,087	47,075	45,982
Naphtha for Petro. Feed. Use	--	3,215	2,216	--	-135	--	--	75	5,491	2,117
Other Oils for Petro. Feed. Use	--	5,309	1,005	--	782	--	--	427	5,105	2,256
Special Naphthas	--	1,590	284	--	-35	--	--	227	1,682	3,270
Lubricants	--	4,627	378	--	225	--	--	508	4,272	14,498
Waxes	--	526	36	--	48	--	--	46	468	893
Petroleum Coke	--	14,653	33	--	402	--	--	6,320	7,964	8,343
Asphalt and Road Oil	--	8,189	904	--	3,460	--	--	41	5,592	29,085
Still Gas	--	18,562	0	--	0	--	--	0	18,562	0
Miscellaneous Products	--	1,826	59	--	-92	--	--	26	1,951	3,276
Total	265,137	404,738	221,457	34	-17,943	7	387,383	24,494	497,424	1,601,574

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[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E **464,558**	**–**	**318,512**	**6,527**	**5,821**	**14**	**770,896**	**10,059**	**2,807**	**896,586**
Natural Gas Liquids and LRGs	**96,085**	**30,168**	**15,255**	**--**	**-22,093**	**--**	**33,708**	**1,958**	**127,935**	**83,561**
Pentanes Plus	17,849	--	586	--	-743	--	11,399	508	7,271	6,026
Liquefied Petroleum Gases	78,236	30,168	14,669	--	-21,350	--	22,309	1,450	120,664	77,535
Ethane/Ethylene	31,097	700	697	--	-503	--	253	8	32,736	17,520
Propane/Propylene	28,949	23,088	8,719	--	-13,887	--	652	1,149	72,842	36,503
Normal Butane/Butylene	9,490	5,696	4,627	--	-5,761	--	13,369	293	11,912	15,685
Isobutane	8,700	684	626	--	-1,199	--	8,035	0	3,174	7,827
Other Liquids	**3,268**	**--**	**25,364**	**--**	**9,670**	**--**	**31,199**	**0**	**-12,237**	**148,819**
Other Hydrocarbons/Alcohol	3,268	--	0	--	-115	--	3,383	0	0	420
Unfinished Oils	--	--	21,676	--	4,890	--	28,811	0	-12,025	104,703
Motor Gasoline Blend. Comp.	--	--	3,688	--	4,978	--	-1,078	0	-212	43,529
Aviation Gasoline Blend. Comp.	--	--	0	--	-83	--	83	0	0	167
Finished Petroleum Products	**--**	**845,532**	**111,565**	**--**	**8,582**	**--**	**--**	**36,044**	**912,471**	**472,608**
Finished Motor Gasoline	--	401,135	21,797	--	13,888	--	--	1,688	407,356	203,568
Leaded	--	56,880	265	--	-650	--	--	120	57,675	39,479
Unleaded	--	344,255	21,532	--	14,538	--	--	1,569	349,680	164,089
Finished Aviation Gasoline	--	1,160	44	--	35	--	--	0	1,169	2,153
Jet Fuel	--	85,936	5,990	--	19	--	--	2,911	88,996	43,747
Naphtha-Type Jet Fuel	--	11,224	153	--	328	--	--	48	11,001	6,379
Kerosene-Type Jet Fuel	--	74,712	5,837	--	-309	--	--	2,863	77,995	37,368
Kerosene	--	5,352	1,190	--	-1,412	--	--	36	7,918	5,871
Distillate Fuel Oil	--	170,506	19,252	--	-15,920	--	--	7,991	197,687	107,549
Residual Fuel Oil	--	55,418	51,343	--	1,434	--	--	8,783	96,544	45,982
Naphtha for Petro. Feed. Use	--	7,218	5,641	--	87	--	--	162	12,610	2,117
Other Oils for Petro. Feed. Use	--	11,268	3,066	--	513	--	--	1,027	12,794	2,256
Special Naphthas	--	3,576	603	--	-279	--	--	462	3,996	3,270
Lubricants	--	9,982	754	--	1,200	--	--	919	8,617	14,498
Waxes	--	1,081	81	--	55	--	--	99	1,008	893
Petroleum Coke	--	32,177	88	--	553	--	--	11,851	19,861	8,343
Asphalt and Road Oil	--	16,602	1,598	--	8,268	--	--	52	9,880	29,085
Still Gas	--	39,832	0	--	0	--	--	0	39,832	0
Miscellaneous Products	--	4,289	118	--	141	--	--	63	4,203	3,276
Total	**563,911**	**875,700**	**470,696**	**6,527**	**1,980**	**14**	**835,803**	**48,061**	**1,030,976**	**1,601,574**

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,830	--	5,263	1	63	(s)	12,774	208	48
Natural Gas Liquids and LRGs	1,601	495	278	--	-333	--	525	38	2,144
Pentanes Plus	302	--	9	--	4	--	194	7	106
Liquefied Petroleum Gases	1,300	495	269	--	-337	--	331	31	2,038
Ethane/Ethylene	512	13	12	--	-1	--	5	(s)	532
Propane/Propylene	483	374	141	--	-312	--	10	26	1,275
Normal Butane/Butylene	150	103	106	--	-34	--	186	5	200
Isobutane	155	5	10	--	11	--	130	0	30
Other Liquids	38	--	490	--	104	--	537	0	-113
Other Hydrocarbons/Alcohol	38	--	0	--	-3	--	40	0	0
Unfinished Oils	--	--	392	--	83	--	458	0	-148
Motor Gasoline Blend. Comp.	--	--	98	--	27	--	36	0	36
Aviation Gasoline Blend. Comp.	--	--	0	--	-3	--	3	0	0
Finished Petroleum Products	--	13,960	1,878	--	-476	--	--	629	15,685
Finished Motor Gasoline	--	6,648	392	--	-79	--	--	24	7,095
Leaded	--	899	5	--	-73	--	--	2	975
Unleaded	--	5,749	387	--	-5	--	--	22	6,119
Finished Aviation Gasoline	--	20	2	--	6	--	--	0	16
Jet Fuel	--	1,405	120	--	-26	--	--	21	1,530
Naphtha-Type Jet Fuel	--	190	2	--	-9	--	--	1	200
Kerosene-Type Jet Fuel	--	1,216	117	--	-18	--	--	20	1,330
Kerosene	--	70	5	--	-53	--	--	(s)	127
Distillate Fuel Oil	--	2,798	322	--	-455	--	--	164	3,411
Residual Fuel Oil	--	929	863	--	-35	--	--	146	1,681
Naphtha for Petro. Feed. Use	--	115	79	--	-5	--	--	3	196
Other Oils for Petro. Feed. Use	--	190	36	--	28	--	--	15	182
Special Naphthas	--	57	10	--	-1	--	--	8	60
Lubricants	--	165	14	--	8	--	--	18	153
Waxes	--	19	1	--	2	--	--	2	17
Petroleum Coke	--	523	1	--	14	--	--	226	284
Asphalt and Road Oil	--	292	32	--	124	--	--	1	200
Still Gas	--	663	0	--	0	--	--	0	663
Miscellaneous Products	--	65	2	--	-3	--	--	1	70
Total	9,469	14,455	7,909	1	-641	(s)	13,835	875	17,765

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,874	--	5,399	111	99	(s)	13,066	170	48
Natural Gas Liquids and LRGs	1,629	511	259	--	-374	--	571	33	2,168
Pentanes Plus	303	--	10	--	-13	--	193	9	123
Liquefied Petroleum Gases	1,326	511	249	--	-362	--	378	25	2,045
Ethane/Ethylene	527	12	12	--	-9	--	4	(s)	555
Propane/Propylene	491	391	148	--	-235	--	11	19	1,235
Normal Butane/Butylene	161	97	78	--	-98	--	227	5	202
Isobutane	147	12	11	--	-20	--	136	0	54
Other Liquids	55	--	430	--	164	--	529	0	-207
Other Hydrocarbons/Alcohol	55	--	0	--	-2	--	57	0	0
Unfinished Oils	--	--	367	--	83	--	488	0	-204
Motor Gasoline Blend. Comp.	--	--	63	--	84	--	-18	0	-4
Aviation Gasoline Blend. Comp.	--	--	0	--	-1	--	1	0	0
Finished Petroleum Products	--	14,331	1,891	--	145	--	--	611	15,466
Finished Motor Gasoline	--	6,799	369	--	235	--	--	29	6,904
Leaded	--	964	4	--	-11	--	--	2	978
Unleaded	--	5,835	365	--	246	--	--	27	5,927
Finished Aviation Gasoline	--	20	1	--	1	--	--	0	20
Jet Fuel	--	1,457	102	--	(s)	--	--	49	1,508
Naphtha-Type Jet Fuel	--	190	3	--	6	--	--	1	186
Kerosene-Type Jet Fuel	--	1,266	99	--	-5	--	--	49	1,322
Kerosene	--	91	20	--	-24	--	--	1	134
Distillate Fuel Oil	--	2,890	326	--	-270	--	--	135	3,351
Residual Fuel Oil	--	939	870	--	24	--	--	149	1,636
Naphtha for Petro. Feed. Use	--	122	96	--	1	--	--	3	214
Other Oils for Petro. Feed. Use	--	191	52	--	9	--	--	17	217
Special Naphthas	--	61	10	--	-5	--	--	8	68
Lubricants	--	169	13	--	20	--	--	16	146
Waxes	--	18	1	--	1	--	--	2	17
Petroleum Coke	--	545	1	--	9	--	--	201	337
Asphalt and Road Oil	--	281	27	--	140	--	--	1	167
Still Gas	--	675	0	--	0	--	--	0	675
Miscellaneous Products	--	73	2	--	2	--	--	1	71
Total	9,558	14,842	7,978	111	34	(s)	14,166	815	17,474

[a] Unaccounted for crude oil is a balancing item.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 972	--	29,748	2,543	1,267	-1,585	1	36,114	0	0	13,22
Natural Gas Liquids and LRGs	846	1,640	1,947	--	3,123	-953	--	152	54	8,303	3,80
Pentanes Plus	102	--	150	--	0	0	--	34	40	178	6
Liquefied Petroleum Gases	744	1,640	1,797	--	3,123	-953	--	118	13	8,126	3,74
Ethane/Ethylene	234	144	0	--	0	10	--	0	5	363	2
Propane/Propylene	341	1,336	1,044	--	3,027	-937	--	0	6	6,679	2,92
Normal Butane/Butylene	125	144	750	--	74	-3	--	73	2	1,021	73
Isobutane	44	16	3	--	22	-23	--	45	0	63	5
Other Liquids	16	--	6,598	--	291	179	--	5,582	0	1,144	17,63
Other Hydrocarbons/Alcohol	16	--	0	--	0	0	--	16	0	0	
Unfinished Oils	--	--	4,655	--	194	-136	--	5,358	0	-373	12,28
Motor Gasoline Blend. Comp.	--	--	1,943	--	97	315	--	208	0	1,517	5,34
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	
Finished Petroleum Products	--	42,255	45,188	--	67,699	-10,947	--	--	795	165,294	145,46
Finished Motor Gasoline	--	19,478	10,419	--	35,143	-988	--	--	7	66,021	62,05
Leaded	--	877	111	--	3,055	-934	--	--	0	4,977	7,55
Unleaded	--	18,601	10,308	--	32,088	-54	--	--	7	61,044	54,49
Finished Aviation Gasoline	--	23	0	--	80	10	--	--	0	93	33
Jet Fuel	--	2,882	2,486	--	10,542	773	--	--	1	15,136	11,03
Naphtha-Type Jet Fuel	--	623	0	--	468	47	--	--	1	1,043	1,03
Kerosene-Type Jet Fuel	--	2,259	2,486	--	10,074	726	--	--	(s)	14,093	10,00
Kerosene	--	275	148	--	669	-775	--	--	3	1,864	2,56
Distillate Fuel Oil	--	9,628	8,676	--	18,887	-9,100	--	--	255	46,036	37,22
Residual Fuel Oil	--	3,987	22,155	--	539	-2,188	--	--	91	28,778	19,15
Petrochemical Feedstocks[e]	--	189	70	--	-43	-54	--	--	21	249	31
Special Naphthas	--	135	12	--	266	26	--	--	209	178	99
Lubricants	--	701	351	--	1,084	223	--	--	134	1,779	3,48
Waxes	--	62	16	--	15	-15	--	--	6	102	70
Petroleum Coke	--	1,251	0	--	0	138	--	--	47	1,066	1,12
Asphalt and Road Oil	--	1,394	800	--	383	1,143	--	--	2	1,432	6,33
Still Gas	--	1,802	0	--	0	0	--	--	0	1,802	
Miscellaneous Products	--	448	55	--	134	-140	--	--	18	759	76
Total	1,834	43,895	83,481	2,543	72,380	-13,306	1	41,848	849	174,741	180,11

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 34	--	1,118	55	53	-40	(s)	1,300	(s)	0
Natural Gas Liquids and LRGs	29	59	62	--	124	-17	--	7	2	283
Pentanes Plus	3	--	6	--	0	(s)	--	1	1	7
Liquefied Petroleum Gases	26	59	56	--	124	-18	--	6	(s)	276
Ethane/Ethylene	8	5	0	--	0	(s)	--	0	(s)	13
Propane/Propylene	12	48	39	--	120	-16	--	0	(s)	234
Normal Butane/Butylene	4	5	17	--	4	-2	--	5	(s)	27
Isobutane	2	1	(s)	--	(s)	(s)	--	1	0	2
Other Liquids	1	--	185	--	10	6	--	220	0	-30
Other Hydrocarbons/Alcohol	1	--	0	--	0	0	--	1	0	0
Unfinished Oils	--	--	141	--	6	-1	--	205	0	-58
Motor Gasoline Blend. Comp.	--	--	45	--	4	7	--	14	0	28
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,539	1,626	--	2,531	-80	--	--	19	5,757
Finished Motor Gasoline	--	694	352	--	1,354	76	--	--	(s)	2,323
Leaded	--	41	3	--	136	-7	--	--	(s)	187
Unleaded	--	653	348	--	1,218	82	--	--	(s)	2,137
Finished Aviation Gasoline	--	(s)	0	--	5	-1	--	--	0	6
Jet Fuel	--	98	78	--	370	11	--	--	(s)	535
Naphtha-Type Jet Fuel	--	20	0	--	12	1	--	--	(s)	31
Kerosene-Type Jet Fuel	--	78	78	--	358	10	--	--	(s)	504
Kerosene	--	15	15	--	33	-10	--	--	(s)	73
Distillate Fuel Oil	--	374	313	--	699	-203	--	--	4	1,585
Residual Fuel Oil	--	152	823	--	18	6	--	--	2	986
Petrochemical Feedstocks[e]	--	8	6	--	(s)	-1	--	--	1	14
Special Naphthas	--	3	(s)	--	7	-3	--	--	7	6
Lubricants	--	25	12	--	32	10	--	--	4	55
Waxes	--	2	1	--	1	(s)	--	--	(s)	4
Petroleum Coke	--	44	(s)	--	0	5	--	--	1	38
Asphalt and Road Oil	--	44	25	--	10	31	--	--	(s)	48
Still Gas	--	66	0	--	0	0	--	--	0	66
Miscellaneous Products	--	15	2	--	3	1	--	--	1	18
Total	65	1,597	2,992	55	2,718	-131	(s)	1,527	21	6,010

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989

(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	**E 21,193**	**--**	**13,103**	**-216**	**47,640**	**-557**	**0**	**81,837**	**440**	**0**	**68,892**
Natural Gas Liquids and LRGs	**8,155**	**2,463**	**3,744**	**--**	**1,498**	**-5,924**	**--**	**4,093**	**118**	**17,573**	**22,148**
Pentanes Plus	1,259	--	39	--	570	-146	--	1,096	24	894	2,033
Liquefied Petroleum Gases	6,896	2,463	3,705	--	928	-5,778	--	2,997	94	16,679	20,115
Ethane/Ethylene	2,146	18	0	--	-802	-373	--	0	0	1,735	3,520
Propane/Propylene	3,057	2,607	2,335	--	1,190	-4,847	--	54	76	13,906	10,718
Normal Butane/Butylene	1,083	-188	1,175	--	362	-287	--	1,581	17	1,121	4,012
Isobutane	610	26	195	--	178	-271	--	1,362	0	-82	1,865
Other Liquids	**10**	**--**	**0**	**--**	**72**	**-698**	**--**	**2,716**	**0**	**-1,936**	**22,742**
Other Hydrocarbons/Alcohol	10	--	0	--	0	-75	--	85	0	0	125
Unfinished Oils	--	--	0	--	129	-1,152	--	1,856	0	-575	13,651
Motor Gasoline Blend. Comp.	--	--	0	--	-57	573	--	731	0	-1,361	8,894
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-44	--	44	0	0	72
Finished Petroleum Products	**--**	**90,251**	**664**	**--**	**14,621**	**-2,320**	**--**	**--**	**97**	**107,759**	**122,700**
Finished Motor Gasoline	--	48,978	87	--	9,280	-894	--	--	6	59,233	59,818
Leaded	--	5,420	2	--	1,307	-490	--	--	3	7,216	13,858
Unleaded	--	43,558	85	--	7,973	-404	--	--	3	52,017	45,960
Finished Aviation Gasoline	--	101	0	--	48	-20	--	--	0	169	520
Jet Fuel	--	5,528	68	--	2,639	-293	--	--	1	8,527	8,658
Naphtha-Type Jet Fuel	--	488	68	--	28	5	--	--	(s)	579	910
Kerosene-Type Jet Fuel	--	5,040	0	--	2,611	-298	--	--	1	7,948	7,748
Kerosene	--	816	0	--	-70	-265	--	--	2	1,009	1,605
Distillate Fuel Oil	--	19,224	151	--	3,255	-1,765	--	--	4	24,391	31,194
Residual Fuel Oil	--	2,247	144	--	-855	-180	--	--	0	1,716	3,272
Petrochemical Feedstocks[e]	--	1,313	63	--	57	-114	--	--	11	1,536	316
Special Naphthas	--	420	111	--	133	-20	--	--	5	679	650
Lubricants	--	601	27	--	85	-201	--	--	28	886	2,218
Waxes	--	67	9	--	0	22	--	--	2	52	128
Petroleum Coke	--	3,342	0	--	0	215	--	--	28	3,099	1,982
Asphalt and Road Oil	--	3,026	0	--	55	1,290	--	--	6	1,785	11,964
Still Gas	--	4,191	0	--	0	0	--	--	0	4,191	0
Miscellaneous Products	--	397	4	--	-6	-95	--	--	2	488	375
Total	**29,358**	**92,714**	**17,511**	**-216**	**63,831**	**-9,499**	**0**	**88,646**	**654**	**123,396**	**236,482**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 779	--	467	13	1,638	-45	0	2,927	15	0
Natural Gas Liquids and LRGs	306	88	138	--	51	-167	--	161	3	597
Pentanes Plus	46	--	1	--	25	-5	--	42	1	35
Liquefied Petroleum Gases	260	88	137	--	36	-162	--	119	2	563
Ethane/Ethylene	85	(s)	0	--	-35	-12	--	0	0	61
Propane/Propylene	113	94	94	--	49	-114	--	2	1	461
Normal Butane/Butylene	40	-7	38	--	9	-29	--	69	(s)	40
Isobutane	22	(s)	5	--	14	-7	--	48	0	1
Other Liquids	8	--	0	--	6	1	--	100	0	-87
Other Hydrocarbons/Alcohol	8	--	0	--	0	-1	--	9	0	0
Unfinished Oils	--	--	0	--	8	-25	--	62	0	-29
Motor Gasoline Blend. Comp.	--	--	0	--	-2	27	--	28	0	-58
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-1	--	1	0	0
Finished Petroleum Products	--	3,270	25	--	562	197	--	--	6	3,653
Finished Motor Gasoline	--	1,770	3	--	366	123	--	--	(s)	2,015
Leaded	--	210	(s)	--	57	11	--	--	(s)	257
Unleaded	--	1,560	2	--	308	112	--	--	(s)	1,758
Finished Aviation Gasoline	--	4	0	--	2	1	--	--	0	5
Jet Fuel	--	196	3	--	97	3	--	--	(s)	292
Naphtha-Type Jet Fuel	--	18	3	--	-1	(s)	--	--	(s)	19
Kerosene-Type Jet Fuel	--	178	0	--	98	3	--	--	(s)	273
Kerosene	--	30	0	--	-4	-6	--	--	(s)	32
Distillate Fuel Oil	--	700	6	--	115	-2	--	--	(s)	824
Residual Fuel Oil	--	87	6	--	-24	-3	--	--	0	72
Petrochemical Feedstocks[e]	--	51	1	--	1	(s)	--	--	(s)	53
Special Naphthas	--	16	4	--	3	-1	--	--	(s)	24
Lubricants	--	23	1	--	5	(s)	--	--	1	27
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	123	0	--	0	8	--	--	5	110
Asphalt and Road Oil	--	104	0	--	2	74	--	--	(s)	31
Still Gas	--	151	0	--	0	0	--	--	0	151
Miscellaneous Products	--	14	(s)	--	(s)	(s)	--	--	(s)	14
Total	1,093	3,358	630	13	2,267	-15	0	3,188	24	4,164

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels)

Commodity	Supply					Disposition						
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]		Ending Stocks
Crude Oil	[E] 99,005	–	96,769	-3,645	-29,464	193	5	162,467	0	0		720,560
Natural Gas Liquids and LRGs	30,011	8,007	1,450	–	-3,172	-2,168	–	8,152	608	29,704		54,901
Pentanes Plus	5,239	--	1	--	-391	256	--	3,389	107	1,097		3,734
Liquefied Petroleum Gases	24,772	8,007	1,449	--	-2,781	-2,424	--	4,763	500	28,608		51,167
Ethane/Ethylene	10,987	162	322	--	1,521	331	--	127	0	12,534		13,826
Propane/Propylene	8,607	5,411	253	--	-4,006	-2,787	--	211	385	12,456		22,258
Normal Butane/Butylene	1,900	2,325	804	--	-233	-583	--	2,506	115	2,758		9,671
Isobutane	3,278	109	70	--	-63	615	--	1,919	0	860		5,412
Other Liquids	652	–	7,135	–	-363	3,465	–	5,517	0	-1,558		70,540
Other Hydrocarbons/Alcohol	652	--	0	--	0	11	--	641	0	0		244
Unfinished Oils	--	--	6,332	--	-323	2,510	--	6,120	0	-2,621		51,686
Motor Gasoline Blend. Comp.	--	--	803	--	-40	971	--	-1,271	0	1,063		18,525
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-27	--	27	0	0		85
Finished Petroleum Products	–	175,620	4,436	–	-84,864	4,860	–	–	7,359	82,973		134,038
Finished Motor Gasoline	--	81,632	0	--	-45,832	3,058	--	--	398	32,344		53,052
Leaded	--	10,210	0	--	-4,526	-24	--	--	34	5,674		9,135
Unleaded	--	71,422	0	--	-41,306	3,082	--	--	364	26,670		43,917
Finished Aviation Gasoline	--	393	0	--	-141	198	--	--	0	54		758
Jet Fuel	--	19,845	772	--	-14,139	591	--	--	249	5,638		16,405
Naphtha-Type Jet Fuel	--	2,577	0	--	-673	107	--	--	25	1,772		2,446
Kerosene-Type Jet Fuel	--	17,268	772	--	-13,466	484	--	--	224	3,866		13,959
Kerosene	--	775	0	--	-599	-352	--	--	1	527		1,529
Distillate Fuel Oil	--	35,188	0	--	-22,356	-1,192	--	--	2,065	11,959		26,206
Residual Fuel Oil	--	9,349	338	--	316	943	--	--	904	8,156		13,311
Petrochemical Feedstocks[e]	--	6,479	3,034	--	-14	728	--	--	234	8,537		3,400
Special Naphthas	--	993	155	--	-399	-24	--	--	9	764		1,478
Lubricants	--	2,645	0	--	-1,119	138	--	--	256	1,132		6,910
Waxes	--	304	2	--	-15	27	--	--	27	237		501
Petroleum Coke	--	6,590	33	--	0	110	--	--	3,197	3,316		3,478
Asphalt and Road Oil	--	2,227	102	--	-438	574	--	--	15	1,302		5,265
Still Gas	--	8,362	0	--	0	0	--	--	0	8,362		0
Miscellaneous Products	--	838	0	--	-128	61	--	--	4	645		1,745
Total	129,668	183,627	109,790	-3,645	-117,863	6,350	5	176,136	7,967	111,119		980,039

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,549	--	3,552	-29	-988	140	(s)	5,943	0	0
Natural Gas Liquids and LRGs	1,079	304	36	--	-133	-169	--	308	20	1,128
Pentanes Plus	186	--	(s)	--	-19	-8	--	116	4	55
Liquefied Petroleum Gases	893	304	36	--	-114	-161	--	191	15	1,074
Ethane/Ethylene	396	5	12	--	63	3	--	4	0	469
Propane/Propylene	311	205	4	--	-160	-96	--	9	11	437
Normal Butane/Butylene	77	86	16	--	-8	-55	--	105	4	118
Isobutane	109	7	4	--	-10	-13	--	74	0	50
Other Liquids	26	--	244	--	-18	127	--	213	0	-89
Other Hydrocarbons/Alcohol	26	--	0	--	0	-1	--	27	0	0
Unfinished Oils	--	--	226	--	-16	70	--	251	0	-112
Motor Gasoline Blend. Comp.	--	--	18	--	-2	58	--	-65	0	22
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	6,447	191	--	-3,177	86	--	--	265	3,110
Finished Motor Gasoline	--	2,982	4	--	-1,765	55	--	--	17	1,149
Leaded	--	398	0	--	-200	-8	--	--	2	205
Unleaded	--	2,584	4	--	-1,565	63	--	--	15	945
Finished Aviation Gasoline	--	12	0	--	-8	1	--	--	0	3
Jet Fuel	--	741	20	--	-497	23	--	--	20	221
Naphtha-Type Jet Fuel	--	93	0	--	-18	9	--	--	1	65
Kerosene-Type Jet Fuel	--	648	20	--	-479	15	--	--	19	156
Kerosene	--	42	6	--	-29	-7	--	--	(s)	24
Distillate Fuel Oil	--	1,292	0	--	-822	-33	--	--	55	447
Residual Fuel Oil	--	331	13	--	6	15	--	--	39	297
Petrochemical Feedstocks[e]	--	237	139	--	(s)	11	--	--	12	352
Special Naphthas	--	40	6	--	-10	-1	--	--	1	35
Lubricants	--	98	0	--	-36	3	--	--	8	52
Waxes	--	11	(s)	--	-1	1	--	--	1	8
Petroleum Coke	--	241	1	--	0	-3	--	--	111	134
Asphalt and Road Oil	--	77	2	--	-11	19	--	--	(s)	49
Still Gas	--	305	0	--	0	0	--	--	0	305
Miscellaneous Products	--	38	0	--	-3	2	--	--	(s)	33
Total	4,654	6,750	4,023	-29	-4,316	185	(s)	6,464	284	4,149

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 14,344	–	1,951	1,029	-5,633	140	0	11,551	0	0	12,459
Natural Gas Liquids and LRGs	3,553	122	375	–	-1,449	-102	–	637	2	2,064	1,035
Pentanes Plus	684	--	67	--	-179	3	--	163	1	405	146
Liquefied Petroleum Gases	2,869	122	308	--	-1,270	-105	--	474	(s)	1,660	889
Ethane/Ethylene	955	0	0	--	-719	-1	--	0	0	237	150
Propane/Propylene	1,216	158	213	--	-211	-67	--	5	(s)	1,438	361
Normal Butane/Butylene	483	-21	90	--	-203	-37	--	406	0	-20	238
Isobutane	215	-15	5	--	-137	0	--	63	0	5	140
Other Liquids	2	–	0	–	0	230	–	-442	0	214	4,735
Other Hydrocarbons/Alcohol	2	--	0	--	0	-4	--	6	0	0	28
Unfinished Oils	--	--	0	--	0	352	--	-502	0	150	2,296
Motor Gasoline Blend. Comp.	--	--	0	--	0	-118	--	54	0	64	2,411
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	–	11,893	101	–	-456	-80	–	–	3	11,615	13,335
Finished Motor Gasoline	--	6,054	27	--	-567	-76	--	--	0	5,590	5,549
Leaded	--	1,888	1	--	-338	24	--	--	0	1,527	2,333
Unleaded	--	4,166	26	--	-229	-100	--	--	0	4,063	3,216
Finished Aviation Gasoline	--	7	0	--	13	7	--	--	0	13	44
Jet Fuel	--	1,141	0	--	504	-89	--	--	1	1,733	976
Naphtha-Type Jet Fuel	--	351	0	--	-109	19	--	--	1	222	394
Kerosene-Type Jet Fuel	--	790	0	--	613	-108	--	--	0	1,511	582
Kerosene	--	8	0	--	0	-8	--	--	0	16	43
Distillate Fuel Oil	--	2,920	72	--	-406	-169	--	--	0	2,755	2,659
Residual Fuel Oil	--	347	0	--	0	-33	--	--	0	380	646
Petrochemical Feedstocks[e]	--	40	0	--	0	27	--	--	0	13	54
Special Naphthas	--	0	1	--	0	0	--	--	(s)	1	4
Lubricants	--	41	0	--	0	20	--	--	1	20	103
Waxes	--	31	1	--	0	8	--	--	(s)	24	83
Petroleum Coke	--	308	0	--	0	-12	--	--	0	320	10
Asphalt and Road Oil	--	449	0	--	0	258	--	--	(s)	191	3,116
Still Gas	--	508	0	--	0	0	--	--	0	508	0
Miscellaneous Products	--	39	0	--	0	-13	--	--	0	52	48
Total	17,899	12,015	2,427	1,029	-7,538	188	0	11,746	5	13,893	31,564

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 526**	**--**	**71**	**36**	**-199**	**11**	**0**	**422**	**0**	**0**
Natural Gas Liquids and LRGs	**132**	**5**	**14**	**--**	**-52**	**-1**	--	**26**	**(s)**	**75**
Pentanes Plus	25	--	3	--	-6	(s)	--	6	(s)	15
Liquefied Petroleum Gases	107	5	12	--	-46	-1	--	19	(s)	60
Ethane/Ethylene	38	0	0	--	-27	(s)	--	0	0	11
Propane/Propylene	44	6	7	--	-9	-2	--	(s)	(s)	50
Normal Butane/Butylene	18	-1	5	--	-5	(s)	--	17	0	(s)
Isobutane	7	(s)	(s)	--	-5	(s)	--	2	0	(s)
Other Liquids	**(s)**	**--**	**0**	**--**	**0**	**9**	**--**	**-13**	**0**	**4**
Other Hydrocarbons/Alcohol	(s)	--	0	--	0	(s)	--	(s)	0	0
Unfinished Oils	--	--	0	--	0	8	--	-13	0	5
Motor Gasoline Blend. Comp.	--	--	0	--	0	1	--	(s)	0	-1
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	**--**	**441**	**5**	**--**	**-22**	**13**	**--**	**--**	**(s)**	**410**
Finished Motor Gasoline	--	227	1	--	-21	6	--	--	0	202
Leaded	--	73	(s)	--	-10	4	--	--	0	58
Unleaded	--	155	1	--	-11	2	--	--	0	143
Finished Aviation Gasoline	--	(s)	0	--	1	(s)	--	--	0	1
Jet Fuel	--	41	0	--	13	-2	--	--	(s)	55
Naphtha-Type Jet Fuel	--	12	0	--	-3	(s)	--	--	(s)	9
Kerosene-Type Jet Fuel	--	29	0	--	16	-1	--	--	0	46
Kerosene	--	(s)	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	108	4	--	-15	-3	--	--	0	99
Residual Fuel Oil	--	12	0	--	0	(s)	--	--	0	13
Petrochemical Feedstocks[e]	--	1	0	--	0	1	--	--	0	(s)
Special Naphthas	--	(s)	(s)	--	0	(s)	--	--	(s)	(s)
Lubricants	--	1	0	--	0	1	--	--	(s)	1
Waxes	--	1	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	11
Asphalt and Road Oil	--	17	0	--	0	11	--	--	(s)	6
Still Gas	--	18	0	--	0	0	--	--	0	18
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	**659**	**446**	**90**	**36**	**-274**	**32**	**0**	**435**	**(s)**	**490**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, February 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	**E 83,731**	**–**	**5,785**	**323**	**-13,810**	**3,585**	**1**	**65,701**	**5,398**	**1,344**	**81,451**
Natural Gas Liquids and LRGs	**2,274**	**1,621**	**272**	**–**	**0**	**-163**	**–**	**1,655**	**276**	**2,399**	**1,677**
Pentanes Plus	1,162	--	0	--	0	0	--	752	10	400	53
Liquefied Petroleum Gases	1,112	1,621	272	--	0	-163	--	903	265	2,000	1,624
Ethane/Ethylene	1	38	0	--	0	0	--	0	1	38	0
Propane/Propylene	316	959	111	--	0	-107	--	10	252	1,231	238
Normal Butane/Butylene	595	612	142	--	0	-30	--	633	12	734	1,027
Isobutane	200	12	19	--	0	-26	--	260	0	-3	359
Other Liquids	**373**	**–**	**0**	**–**	**0**	**-257**	**–**	**1,651**	**0**	**-1,021**	**33,172**
Other Hydrocarbons/Alcohol	373	--	0	--	0	-5	--	378	0	0	23
Unfinished Oils	--	--	0	--	0	739	--	-7	0	-732	24,787
Motor Gasoline Blend. Comp.	--	--	0	--	0	-991	--	1,280	0	-289	8,352
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	10
Finished Petroleum Products	**–**	**70,866**	**2,191**	**–**	**3,000**	**-4,841**	**–**	**–**	**9,345**	**71,553**	**57,073**
Finished Motor Gasoline	--	30,003	431	--	1,976	-3,302	--	--	251	35,461	23,098
Leaded	--	6,768	22	--	502	-633	--	--	16	7,909	6,597
Unleaded	--	23,235	409	--	1,474	-2,669	--	--	235	27,552	16,501
Finished Aviation Gasoline	--	47	43	--	0	-38	--	--	0	128	494
Jet Fuel	--	9,954	22	--	454	-1,722	--	--	342	11,810	6,671
Naphtha-Type Jet Fuel	--	1,277	0	--	286	-423	--	--	0	1,986	1,595
Kerosene-Type Jet Fuel	--	8,677	22	--	168	-1,299	--	--	342	9,824	5,076
Kerosene	--	77	0	--	0	-73	--	--	0	150	131
Distillate Fuel Oil	--	11,392	104	--	620	-515	--	--	2,256	10,375	10,267
Residual Fuel Oil	--	10,089	1,522	--	0	474	--	--	3,092	8,045	9,595
Petrochemical Feedstocks[e]	--	503	54	--	0	60	--	--	235	262	286
Special Naphthas	--	42	5	--	0	-17	--	--	2	62	148
Lubricants	--	639	0	--	-50	45	--	--	89	455	1,783
Waxes	--	62	8	--	0	6	--	--	11	53	111
Petroleum Coke	--	3,162	0	--	0	-49	--	--	3,048	163	1,744
Asphalt and Road Oil	--	1,093	2	--	0	195	--	--	17	883	2,403
Still Gas	--	3,699	0	--	0	0	--	--	0	3,699	0
Miscellaneous Products	--	104	0	--	0	95	--	--	2	7	342
Total	**86,378**	**72,487**	**8,248**	**323**	**-10,810**	**-1,676**	**1**	**69,007**	**15,019**	**74,275**	**173,373**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-February 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 2,986**	**--**	**191**	**36**	**-505**	**32**	**(s)**	**2,473**	**155**	**48**
Natural Gas Liquids and LRGs	**82**	**55**	**8**	**--**	**0**	**-19**	**--**	**70**	**9**	**84**
Pentanes Plus	42	--	0	--	0	(s)	--	27	2	12
Liquefied Petroleum Gases	40	55	8	--	0	-19	--	43	7	72
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	(s)	1
Propane/Propylene	11	38	4	--	0	-8	--	(s)	7	53
Normal Butane/Butylene	21	13	3	--	0	-11	--	31	(s)	17
Isobutane	7	3	1	--	0	(s)	--	11	0	(s)
Other Liquids	**20**	**--**	**1**	**--**	**2**	**21**	**--**	**9**	**0**	**-6**
Other Hydrocarbons/Alcohol	20	--	0	--	0	(s)	--	20	0	0
Unfinished Oils	--	--	1	--	2	31	--	-17	0	-10
Motor Gasoline Blend. Comp.	--	--	0	--	0	-10	--	6	0	4
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	**--**	**2,635**	**43**	**--**	**106**	**-71**	**--**	**--**	**320**	**2,535**
Finished Motor Gasoline	--	1,125	9	--	67	-25	--	--	12	1,214
Leaded	--	242	(s)	--	17	-11	--	--	(s)	270
Unleaded	--	883	9	--	50	-13	--	--	11	944
Finished Aviation Gasoline	--	3	1	--	0	(s)	--	--	0	4
Jet Fuel	--	381	2	--	17	-35	--	--	30	406
Naphtha-Type Jet Fuel	--	48	(s)	--	10	-4	--	—	0	62
Kerosene-Type Jet Fuel	--	333	2	--	7	-31	--	--	30	343
Kerosene	--	4	0	--	0	-1	--	--	(s)	5
Distillate Fuel Oil	--	417	3	--	22	-29	--	--	75	395
Residual Fuel Oil	--	357	27	--	0	7	--	--	108	269
Petrochemical Feedstocks[e]	--	16	1	--	0	(s)	--	--	7	11
Special Naphthas	--	2	(s)	--	0	(s)	--	--	(s)	2
Lubricants	--	22	0	--	(s)	7	--	--	3	12
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	127	(s)	--	0	(s)	--	--	84	44
Asphalt and Road Oil	--	40	(s)	--	0	6	--	--	(s)	33
Still Gas	--	135	0	--	0	0	--	--	0	135
Miscellaneous Products	--	4	0	--	0	(s)	--	--	(s)	3
Total	**3,088**	**2,690**	**243**	**36**	**-396**	**-37**	**(s)**	**2,552**	**485**	**2,661**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	December 1988		January-December 1988	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 1,045**	**E 34**	**E 13,681**	**E 37**
Florida	601	19	7,743	21
New York	42	1	E 570	E 2
Pennsylvania	E 207	E 7	E 2,837	E 8
Virginia	2	(s)	E 18	E (s)
West Virginia	212	7	2,575	7
Adjustment[a]	-19	-1	-62	(s)
PAD District II	**24,856**	**802**	**E 302,929**	**E 828**
Illinois	1,795	58	23,565	64
Indiana	296	10	3,820	10
Kansas	4,828	156	58,116	159
Kentucky	467	15	5,459	15
Michigan	1,886	61	E 23,489	E 64
Missouri	10	(s)	E 129	E (s)
Nebraska	534	17	5,985	16
North Dakota	3,171	102	39,343	107
Ohio	934	30	E 10,633	E 29
Oklahoma	10,660	344	128,472	351
South Dakota	138	4	1,658	5
Tennessee	48	2	E 600	E 2
Adjustment[a]	89	3	1,660	5
PAD District III	**E 111,045**	**E 3,582**	**E 1,324,932**	**E 3,620**
Alabama	1,745	56	20,797	57
Arkansas	E 1,128	E 36	E 13,575	E 37
Louisiana[b]	E 13,721	E 443	E 164,560	E 450
Mississippi	2,324	75	27,546	75
New Mexico	5,915	191	70,541	193
Texas[b]	60,635	1,956	733,990	2,005
Federal Offshore PAD District III	25,332	817	E 290,651	E 794
Adjustment[a]	245	8	3,272	9
PAD District IV	**E 16,253**	**E 524**	**E 201,182**	**E 550**
Colorado	E 2,675	E 86	E 32,117	E 88
Montana	1,868	60	E 23,200	E 63
Utah	2,549	82	33,078	90
Wyoming	9,102	294	112,923	309
Adjustment[a]	59	2	-136	(s)
PAD District V	**94,011**	**3,033**	**1,132,320**	**3,094**
Alaska[b]	61,864	1,996	738,148	2,017
South Alaska	1,349	44	15,705	43
North Slope	60,513	1,952	722,447	1,974
Adjustment for Alaska[a]	2	(s)	-4	(s)
Arizona	9	(s)	114	(s)
California[b]	28,718	926	354,731	969
Nevada	275	9	3,230	9
Federal Offshore PAD District V	2,499	81	31,282	85
Adjustment excluding Alaska[a]	646	21	4,815	13
U.S. Total[b]	**E 247,210**	**E 7,975**	**E 2,975,044**	**E 8,129**

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 4,167; California: State - 2,272; Louisiana: State - E2,076; Texas: State - 142; U.S. Total, including Federal offshore - E36,488.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, February 1989

(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production			
Natural Gas Liquids	**234**	**612**	**846**	**671**	**243**	**7,241**	**8,155**
Pentanes Plus	30	72	102	135	61	1,063	1,259
Liquefied Petroleum Gases	204	540	744	536	182	6,178	6,896
Ethane	64	170	234	106	0	2,040	2,146
Propane	82	259	341	260	112	2,685	3,057
Normal Butane	45	80	125	87	66	930	1,083
Isobutane	13	31	44	83	4	523	610
				Stocks			
Natural Gas Liquids	**166**	**41**	**207**	**192**	**29**	**2,050**	**2,271**
Pentanes Plus	2	7	9	30	4	369	403
Liquefied Petroleum Gases	164	34	198	162	25	1,681	1,868
Ethane	0	0	0	17	0	388	405
Propane	104	27	131	81	22	909	1,012
Normal Butane	57	4	61	42	3	280	325
Isobutane	3	3	6	22	0	104	126

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
					Net Production				
Natural Gas Liquids	**16,036**	**2,584**	**7,042**	**664**	**3,685**	**30,011**	**3,553**	**2,274**	**44,839**
Pentanes Plus	2,851	573	1,203	171	441	5,239	684	1,162	8,446
Liquefied Petroleum Gases	13,185	2,011	5,839	493	3,244	24,772	2,869	1,112	36,393
Ethane	5,620	1,047	2,659	126	1,535	10,987	955	1	14,323
Propane	4,834	599	1,889	197	1,088	8,607	1,216	316	13,537
Normal Butane	1,995	-1,236	609	121	411	1,900	483	595	4,186
Isobutane	736	1,601	682	49	210	3,278	215	200	4,347
					Stocks				
Natural Gas Liquids	**1,162**	**1,528**	**882**	**151**	**130**	**3,853**	**190**	**70**	**6,591**
Pentanes Plus	441	263	227	25	16	972	67	18	1,469
Liquefied Petroleum Gases	721	1,265	655	126	114	2,881	123	52	5,122
Ethane	92	362	58	23	21	556	3	0	964
Propane	345	254	387	48	69	1,103	86	34	2,366
Normal Butane	233	417	119	40	16	825	27	12	1,250
Isobutane	51	232	91	15	8	397	7	6	542

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, February 1989
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**33,271**	**2,843**	**36,114**	**54,532**	**8,824**	**18,481**	**81,837**
Natural Gas Liquids	**99**	**53**	**152**	**2,381**	**300**	**1,412**	**4,093**
Pentanes Plus	34	0	34	392	39	665	1,096
Liquefied Petroleum Gases	65	53	118	1,989	261	747	2,997
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	54	0	0	54
Normal Butane	20	53	73	1,001	198	382	1,581
Isobutane	45	0	45	934	63	365	1,362
Other Liquids	**5,442**	**140**	**5,582**	**2,245**	**133**	**338**	**2,716**
Other Hydrocarbons/Alcohol	16	0	16	80	2	3	85
Unfinished Oils (net)	5,218	140	5,358	1,482	94	280	1,856
Motor Gasoline Blend. Comp. (net)	208	0	208	677	37	17	731
Aviation Gasoline Blend. Comp. (net)	0	0	0	6	0	38	44
Total Input to Refineries	**38,812**	**3,036**	**41,848**	**59,158**	**9,257**	**20,231**	**88,646**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,199	102	1,301	1,956	316	663	2,934
Operable Capacity (daily average)	1,369	109	1,478	2,195	337	731	3,263
Operating Ratio (percent)[a]	87.6	93.1	88.0	89.1	93.7	90.7	89.9
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	530	16	546	670	118	220	1,008
Catalytic Hydrocracking	58	0	58	109	0	4	113
Delayed and Fluid Coking	76	0	76	134	48	62	244
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	0.92	0.56	0.90	0.92	1.94	0.60	0.96
API Gravity, Weighted Average (degrees)	32.71	38.42	33.16	35.23	30.76	36.32	35.00
Operable Capacity (daily average)	**1,369**	**109**	**1,478**	**2,195**	**337**	**731**	**3,263**
Operating	1,273	109	1,382	2,193	337	731	3,261
Idle	96	0	96	2	0	0	2
Alaskan Crude Oil Receipts	**934**	**0**	**934**	**569**	**0**	**331**	**900**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, February 1989 (Continued)

(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**13,911**	**72,059**	**69,952**	**5,163**	**1,382**	**162,467**	**11,551**	**65,701**	**357,670**
Natural Gas Liquids	**1,704**	**2,696**	**3,234**	**333**	**185**	**8,152**	**637**	**1,655**	**14,689**
Pentanes Plus	918	1,147	986	192	146	3,389	163	752	5,434
Liquefied Petroleum Gases	786	1,549	2,248	141	39	4,763	474	903	9,255
Ethane	0	5	122	0	0	127	0	0	127
Propane	0	63	148	0	0	211	5	10	280
Normal Butane	435	849	1,161	48	13	2,506	406	633	5,199
Isobutane	351	632	817	93	26	1,919	63	260	3,649
Other Liquids	**-94**	**9,627**	**-3,998**	**30**	**-48**	**5,517**	**-442**	**1,651**	**15,024**
Other Hydrocarbons/Alcohol	0	288	338	0	15	641	6	378	1,126
Unfinished Oils (net)	-138	9,591	-3,296	21	-58	6,120	-502	-7	12,825
Motor Gasoline Blend. Comp. (net)	44	-262	-1,057	9	-5	-1,271	54	1,280	1,002
Aviation Gasoline Blend. Comp. (net)	0	10	17	0	0	27	0	0	71
Total Input to Refineries	**15,521**	**84,382**	**69,188**	**5,526**	**1,519**	**176,136**	**11,746**	**69,007**	**387,383**
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	498	2,599	2,545	180	49	5,871	414	2,491	13,011
Operable Capacity (daily average)	556	3,528	2,938	255	76	7,352	550	3,052	15,694
Operating Ratio (percent)[a]	89.6	73.7	86.6	70.9	64.4	79.9	75.3	81.6	82.9
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	177	1,152	664	31	15	2,038	131	512	4,235
Catalytic Hydrocracking	11	142	212	2	0	367	5	390	933
Delayed and Fluid Coking	8	168	378	13	0	567	18	422	1,327
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.69	0.93	1.42	1.37	0.57	1.13	0.84	1.13	1.06
API Gravity, Weighted Average (degrees)	38.78	34.21	31.58	33.77	41.18	33.52	36.16	25.87	32.47
Operable Capacity (daily average)	**556**	**3,528**	**2,938**	**255**	**76**	**7,352**	**550**	**3,052**	**15,694**
Operating	534	3,313	2,597	248	76	6,767	527	3,032	14,969
Idle	22	215	341	7	0	585	23	20	725
Alaskan Crude Oil Receipts	**0**	**3,255**	**2,232**	**261**	**0**	**5,748**	**0**	**39,053**	**46,635**

[a] Represents gross input divided by operable capacity.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, February 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,611	29	1,640	2,046	168	249	2,463
Ethane/Ethylene	144	0	144	18	0	0	18
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,307	29	1,336	2,033	175	399	2,607
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	144	0	144	-20	-18	-150	-188
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	16	0	16	15	11	0	26
Finished Motor Gasoline	18,358	1,120	19,478	33,011	4,912	11,055	48,978
Leaded	703	174	877	2,218	436	2,766	5,420
Unleaded	17,655	946	18,601	30,793	4,476	8,289	43,558
Finished Aviation Gasoline	23	0	23	44	31	26	101
Jet Fuel	2,882	0	2,882	3,417	563	1,548	5,528
Naphtha-Type	623	0	623	255	23	210	488
Kerosene-Type	2,259	0	2,259	3,162	540	1,338	5,040
Kerosene	173	102	275	649	82	85	816
Distillate Fuel Oil	8,736	892	9,628	12,273	2,212	4,739	19,224
Residual Fuel Oil	3,901	86	3,987	1,760	247	240	2,247
Less than 0.31 percent sulfur	772	11	783	52	0	0	52
0.31 to 1.00 percent sulfur	2,123	75	2,198	248	0	70	318
Greater than 1.00 percent sulfur	1,006	0	1,006	1,460	247	170	1,877
Naphtha for Petrochemical Feedstock Use	182	0	182	587	0	82	669
Other Oils for Petrochemical Feedstock Use	7	0	7	595	0	49	644
Special Naphthas	109	26	135	179	0	241	420
Lubricants	364	337	701	356	0	245	601
Naphthenic	182	0	182	0	0	0	0
Paraffinic	182	337	519	356	0	245	601
Waxes	0	62	62	44	0	23	67
Petroleum Coke	1,227	24	1,251	2,145	511	686	3,342
Marketable	362	0	362	1,217	377	450	2,044
Catalyst	865	24	889	928	134	236	1,298
Asphalt and Road Oil	1,186	208	1,394	1,734	561	731	3,026
Still Gas	1,691	111	1,802	2,905	374	912	4,191
Miscellaneous Products	409	39	448	303	39	55	397
Fuel Use	0	0	0	0	0	0	0
Nonfuel Use	409	39	448	303	39	55	397
Total	**40,859**	**3,036**	**43,895**	**62,048**	**9,700**	**20,966**	**92,714**
Processing Gain(-) or Loss(+)[a]	-2,047	0	-2,047	-2,890	-443	-735	-4,068

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, February 1989 (Continued)
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	289	4,027	3,560	95	36	8,007	122	1,621	13,853
Ethane/Ethylene	-14	168	8	0	0	162	0	38	362
Ethane	W	W	W	W	W	W	W	W	181
Ethylene	W	W	W	W	W	W	W	W	181
Propane/Propylene	436	3,076	1,786	81	32	5,411	158	959	10,471
Propane	W	W	W	W	W	W	W	W	8,680
Propylene	W	W	W	W	W	W	W	W	1,791
Normal Butane/Butylene	-102	677	1,735	14	1	2,325	-21	612	2,872
Normal Butane	W	W	W	W	W	W	W	W	2,732
Butylene	W	W	W	W	W	W	W	W	140
Isobutane	-31	106	31	0	3	109	-15	12	148
Finished Motor Gasoline	8,562	39,982	30,519	1,700	869	81,632	6,054	30,003	186,145
Leaded	1,694	3,758	4,236	280	242	10,210	1,888	6,768	25,163
Unleaded	6,868	36,224	26,283	1,420	627	71,422	4,166	23,235	160,982
Finished Aviation Gasoline	33	224	136	0	0	393	7	47	571
Jet Fuel	1,944	8,530	8,896	315	160	19,845	1,141	9,954	39,350
Naphtha-Type	807	1,032	419	211	108	2,577	351	1,277	5,316
Kerosene-Type	1,137	7,498	8,477	104	52	17,268	790	8,677	34,034
Kerosene	42	79	626	28	0	775	8	77	1,951
Distillate Fuel Oil	3,062	15,124	15,111	1,541	350	35,188	2,920	11,392	78,352
Residual Fuel Oil	457	5,495	3,091	299	7	9,349	347	10,089	26,019
Less than 0.31 percent sulfur	95	0	586	60	4	745	22	943	2,545
0.31 to 1.00 percent sulfur	143	589	242	185	3	1,162	35	918	4,631
Greater than 1.00 percent sulfur	219	4,906	2,263	54	0	7,442	290	8,228	18,843
Naphtha for Petrochemical Feedstock Use	130	1,726	245	32	5	2,138	29	197	3,215
Other Oils for Petrochemical Feedstock Use	108	3,011	1,222	0	0	4,341	11	306	5,309
Special Naphthas	76	712	51	154	0	993	0	42	1,590
Lubricants	19	1,639	681	306	0	2,645	41	639	4,627
Naphthenic	19	270	0	182	0	471	0	245	898
Paraffinic	0	1,369	681	124	0	2,174	41	394	3,729
Waxes	8	177	69	50	0	304	31	62	526
Petroleum Coke	313	2,697	3,414	150	16	6,590	308	3,162	14,653
Marketable	44	1,280	2,732	94	0	4,150	142	2,453	9,151
Catalyst	269	1,417	682	56	16	2,440	166	709	5,502
Asphalt and Road Oil	183	317	928	752	47	2,227	449	1,093	8,189
Still Gas	610	4,284	3,247	175	46	8,362	508	3,699	18,562
Miscellaneous Products	23	513	302	0	0	838	39	104	1,826
Fuel Use	1	0	31	0	0	32	0	1	33
Nonfuel Use	22	513	271	0	0	806	39	103	1,793
Total	**15,859**	**88,537**	**72,098**	**5,597**	**1,536**	**183,627**	**12,015**	**72,487**	**404,738**
Processing Gain(-) or Loss(+)[a]	-338	-4,155	-2,910	-71	-17	-7,491	-269	-3,480	-17,355

[a] Represents the arithmetic difference between input and production.
W = Withheld to avoid disclosure of individual company data.
Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, February 1989

(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**11,129**	**722**	**11,851**	**7,964**	**1,682**	**1,962**	**11,608**
Petroleum Products	**42,687**	**3,100**	**45,787**	**38,197**	**8,622**	**16,344**	**63,163**
Pentanes Plus	16	0	16	52	76	145	273
Liquefied Petroleum Gases	1,124	9	1,133	1,575	186	804	2,565
Ethane/Ethylene	22	0	22	1	0	0	1
Propane/Propylene	884	3	887	851	30	116	997
Normal Butane/Butylene	176	6	182	554	77	585	1,216
Isobutane	42	0	42	169	79	103	351
Other Hydrocarbons and Alcohol	0	0	0	72	3	50	125
Unfinished Oils	11,559	724	12,283	8,755	457	4,439	13,651
Naphthas and Lighter	3,415	189	3,604	2,183	127	1,136	3,446
Kerosene and Light Gas Oils	2,672	98	2,770	1,366	96	376	1,838
Heavy Gas Oils	4,598	304	4,902	3,035	189	1,344	4,568
Residuum	874	133	1,007	2,171	45	1,583	3,799
Motor Gasoline Blending Components	5,173	110	5,283	5,933	612	1,845	8,390
Aviation Gasoline Blending Components	0	0	0	64	0	8	72
Finished Motor Gasoline	10,682	539	11,221	7,337	2,194	2,856	12,387
Leaded	882	227	1,109	1,153	458	1,173	2,784
Unleaded	9,800	312	10,112	6,184	1,736	1,683	9,603
Finished Aviation Gasoline	32	0	32	135	24	26	185
Jet Fuel	2,344	2	2,346	1,637	242	601	2,480
Naphtha-Type	332	0	332	332	36	131	499
Kerosene-Type	2,012	2	2,014	1,305	206	470	1,981
Kerosene	154	59	213	411	73	227	711
Distillate Fuel Oil	4,675	338	5,013	5,031	911	2,481	8,423
Residual Fuel Oil	2,433	69	2,502	1,923	241	162	2,326
Less than 0.31 percent sulfur	510	36	546	30	0	0	30
0.31 to 1.00 percent sulfur	1,100	33	1,133	426	0	80	506
Greater than 1.00 percent sulfur	823	0	823	1,467	241	82	1,790
Naphtha for Petrochemical Feedstock Use	314	0	314	219	0	89	308
Other Oils for Petrochemical Feedstock Use	3	0	3	8	0	0	8
Special Naphthas	370	52	422	156	0	122	278
Lubricants	354	806	1,160	903	0	490	1,393
Waxes	0	70	70	109	0	19	128
Petroleum Coke (Marketable)	1,129	0	1,129	353	1,441	188	1,982
Asphalt and Road Oil	2,121	294	2,415	3,336	2,139	1,764	7,239
Miscellaneous Products	204	28	232	188	23	28	239
Total Stocks, All Oils	**53,816**	**3,822**	**57,638**	**46,161**	**10,304**	**18,306**	**74,771**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, February 1989 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**1,139**	**30,606**	**16,316**	**1,731**	**352**	**50,144**	**1,991**	**24,709**	100,303
Petroleum Products	**9,969**	**81,251**	**51,640**	**5,619**	**1,338**	**149,817**	**13,245**	**64,129**	336,141
Pentanes Plus	211	119	200	11	33	574	4	31	898
Liquefied Petroleum Gases	800	3,743	3,122	26	33	7,724	266	661	12,349
Ethane/Ethylene	69	724	0	0	0	793	0	0	816
Propane/Propylene	236	1,449	1,584	6	6	3,281	48	86	5,299
Normal Butane/Butylene	343	688	1,292	4	19	2,346	129	389	4,262
Isobutane	152	882	246	16	8	1,304	89	186	1,972
Other Hydrocarbons and Alcohol	0	164	72	0	8	244	28	23	420
Unfinished Oils	2,289	29,164	19,263	753	217	51,686	2,296	24,787	104,703
Naphthas and Lighter	681	8,460	5,705	157	33	15,036	506	4,885	27,477
Kerosene and Light Gas Oils	408	6,923	2,315	94	1	9,741	432	2,921	17,702
Heavy Gas Oils	610	8,480	6,836	435	183	16,544	1,055	12,402	39,471
Residuum	590	5,301	4,407	67	0	10,365	303	4,579	20,053
Motor Gasoline Blending Components	1,420	8,394	6,975	120	253	17,162	2,394	8,271	41,500
Aviation Gasoline Blending Components	0	11	74	0	0	85	0	10	167
Finished Motor Gasoline	1,973	13,163	6,003	1,051	249	22,439	2,303	9,623	57,973
Leaded	559	1,864	1,348	162	92	4,025	1,049	2,662	11,629
Unleaded	1,414	11,299	4,655	889	157	18,414	1,254	6,961	46,344
Finished Aviation Gasoline	58	335	179	0	0	572	27	221	1,037
Jet Fuel	793	4,191	2,795	205	147	8,131	521	3,241	16,719
Naphtha-Type	340	770	372	160	123	1,765	250	706	3,552
Kerosene-Type	453	3,421	2,423	45	24	6,366	271	2,535	13,167
Kerosene	36	489	362	64	0	951	9	91	1,975
Distillate Fuel Oil	849	7,570	4,129	868	82	13,498	1,395	5,176	33,505
Residual Fuel Oil	313	3,620	2,640	257	5	6,835	646	6,431	18,740
Less than 0.31 percent sulfur	81	0	870	3	3	957	59	681	2,273
0.31 to 1.00 percent sulfur	19	361	158	202	2	742	297	818	3,496
Greater than 1.00 percent sulfur	213	3,259	1,612	52	0	5,136	290	4,932	12,971
Naphtha for Petrochemical Feedstock Use	66	891	269	20	13	1,259	52	184	2,117
Other Oils for Petrochemical Feedstock Use	59	1,829	253	0	0	2,141	2	102	2,256
Special Naphthas	90	1,154	16	163	0	1,423	4	134	2,261
Lubricants	16	3,929	1,650	470	0	6,065	103	999	9,720
Waxes	55	227	202	17	0	501	83	111	893
Petroleum Coke (Marketable)	14	824	2,380	260	0	3,478	10	1,744	8,343
Asphalt and Road Oil	878	1,007	862	1,334	298	4,379	3,055	2,168	19,256
Miscellaneous Products	49	427	194	0	0	670	47	121	1,309
Total Stocks, All Oils	**11,108**	**111,857**	**67,956**	**7,350**	**1,690**	**199,961**	**15,236**	**88,838**	436,444

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] February 1989

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	4.2	1.0	4.0	3.7	1.9	1.3	2.9
Finished Motor Gasoline[b]	46.9	35.8	46.1	53.3	51.3	51.3	52.7
Finished Aviation Gasoline[c]	0.1	0.0	0.1	0.1	0.3	-0.1	0.1
Naphtha-Type Jet Fuel	1.6	0.0	1.5	0.5	0.3	1.1	0.6
Kerosene-Type Jet Fuel	5.9	0.0	5.4	5.6	6.1	7.1	6.0
Kerosene	0.4	3.4	0.7	1.2	0.9	0.5	1.0
Distillate Fuel Oil	22.7	29.9	23.2	21.9	24.8	25.3	23.0
Residual Fuel Oil	10.1	2.9	9.6	3.1	2.8	1.3	2.7
Naphtha for Petrochemical Feedstock Use	0.5	0.0	0.4	1.0	0.0	0.4	0.8
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.1	0.0	0.3	0.8
Special Naphthas	0.3	0.9	0.3	0.3	0.0	1.3	0.5
Lubricants	0.9	11.3	1.7	0.6	0.0	1.3	0.7
Waxes	0.0	2.1	0.1	0.1	0.0	0.1	0.1
Petroleum Coke	3.2	0.8	3.0	3.8	5.7	3.7	4.0
Asphalt and Road Oil	3.1	7.0	3.4	3.1	6.3	3.9	3.6
Still Gas	4.4	3.7	4.3	5.2	4.2	4.9	5.0
Miscellaneous Products	1.1	1.3	1.1	0.5	0.4	0.3	0.5
Processing Gain(-) or Loss(+)[d]	-5.3	0.0	-4.9	-5.2	-5.0	-3.9	-4.9

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	2.1	4.9	5.3	1.8	2.7	4.7	1.1	2.5	3.7
Finished Motor Gasoline[b]	49.5	45.6	42.0	26.2	50.9	44.0	48.5	40.6	45.7
Finished Aviation Gasoline[c]	0.2	0.3	0.2	0.0	0.0	0.2	0.1	0.1	0.1
Naphtha-Type Jet Fuel	5.9	1.3	0.6	4.1	8.2	1.5	3.2	1.9	1.4
Kerosene-Type Jet Fuel	8.3	9.2	12.7	2.0	3.9	10.2	7.1	13.2	9.2
Kerosene	0.3	0.1	0.9	0.5	0.0	0.5	0.1	0.1	0.5
Distillate Fuel Oil	22.2	18.5	22.7	29.7	26.4	20.9	26.4	17.3	21.1
Residual Fuel Oil	3.3	6.7	4.6	5.8	0.5	5.5	3.1	15.4	7.0
Naphtha for Petrochemical Feedstock Use	0.9	2.1	0.4	0.6	0.4	1.3	0.3	0.3	0.9
Other Oils for Petrochemical Feedstock Use	0.8	3.7	1.8	0.0	0.0	2.6	0.1	0.5	1.4
Special Naphthas	0.6	0.9	0.1	3.0	0.0	0.6	0.0	0.1	0.4
Lubricants	0.1	2.0	1.0	5.9	0.0	1.6	0.4	1.0	1.2
Waxes	0.1	0.2	0.1	1.0	0.0	0.2	0.3	0.1	0.1
Petroleum Coke	2.3	3.3	5.1	2.9	1.2	3.9	2.8	4.8	4.0
Asphalt and Road Oil	1.3	0.4	1.4	14.5	3.5	1.3	4.1	1.7	2.2
Still Gas	4.4	5.2	4.9	3.4	3.5	5.0	4.6	5.6	5.0
Miscellaneous Products	0.2	0.6	0.5	0.0	0.0	0.5	0.4	0.2	0.5
Processing Gain(-) or Loss(+)[d]	-2.5	-5.1	-4.4	-1.4	-1.3	-4.4	-2.4	-5.3	-4.7

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, February 1989
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**7,613**	**5,164**	**9,378**	**22,155**
Connecticut	0	622	0	622
Florida	0	0	430	430
Georgia	0	0	51	51
Maine	0	731	14	745
Maryland	0	726	482	1,208
Massachusetts	0	1,165	3,033	4,198
New Jersey	1,010	640	1,104	2,754
New York	6,216	468	2,625	9,309
North Carolina	0	0	101	101
Pennsylvania	363	794	270	1,427
South Carolina	24	0	344	368
Vermont	0	0	7	7
Virginia	0	18	917	935
PAD District II	**79**	**0**	**65**	**144**
Michigan	79	0	0	79
Minnesota	0	0	1	1
North Dakota	0	0	64	64
PAD District III	**0**	**0**	**338**	**338**
Texas	0	0	338	338
PAD District V	**1,257**	**0**	**265**	**1,522**
California	847	0	0	847
Hawaii	410	0	0	410
Washington	0	0	265	265
U.S. Total	**8,949**	**5,164**	**10,046**	**24,159**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, February 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**29,559**	**29,290**	**80,771**	**1,951**	**5,785**	**147,356**	**5,263**
Natural Gas Liquids	**1,947**	**3,744**	**1,450**	**375**	**272**	**7,788**	**278**
Pentanes Plus	150	39	1	67	0	257	9
Liquefied Petroleum Gases	1,797	3,705	1,449	308	272	7,531	269
Ethane/Ethylene	0	0	322	0	0	322	12
Propane/Propylene	1,044	2,335	253	213	111	3,956	141
Normal Butane/Butylene	750	1,175	804	90	142	2,961	106
Isobutane	3	195	70	5	19	292	10
Other Liquids	**6,598**	**0**	**7,135**	**0**	**0**	**13,733**	**490**
Unfinished Oils[a]	4,655	0	6,332	0	0	10,987	392
Naphthas and Lighter	230	0	2,517	0	0	2,747	98
Kerosene and Light Gas Oils	237	0	0	0	0	237	8
Heavy Gas Oils	4,188	0	1,469	0	0	5,657	202
Residuum	0	0	2,346	0	0	2,346	84
Motor Gasoline Blending Components	1,943	0	803	0	0	2,746	98
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**45,188**	**664**	**4,436**	**101**	**2,191**	**52,580**	**1,878**
Finished Motor Gasoline	10,419	87	0	27	431	10,964	392
Leaded	111	2	0	1	22	136	5
Unleaded	10,308	85	0	26	409	10,828	387
Finished Aviation Gasoline	0	0	0	0	43	43	2
Jet Fuel	2,486	68	772	0	22	3,348	120
Naphtha-Type	0	68	0	0	0	68	2
Kerosene-Type	2,486	0	772	0	22	3,280	117
Bonded Aircraft Fuel	676	0	772	0	0	1,448	52
Other	1,810	0	0	0	22	1,832	65
Kerosene	148	0	0	0	0	148	5
Distillate Fuel Oil	8,676	151	0	72	104	9,003	322
Bonded Ship Bunkers	0	0	0	0	0	0	0
Other	8,676	151	0	72	104	9,003	322
Residual Fuel Oil	22,155	144	338	0	1,522	24,159	863
Bonded Ship Bunkers	0	0	0	0	0	0	0
Other	22,155	144	338	0	1,522	24,159	863
Naphtha for Petrochemical Feedstock Use	70	63	2,029	0	54	2,216	79
Other Oils for Petrochemical Feedstock Use	0	0	1,005	0	0	1,005	36
Special Naphthas	12	111	155	1	5	284	10
Lubricants	351	27	0	0	0	378	14
Waxes	16	9	2	1	8	36	1
Petroleum Coke	0	0	33	0	0	33	1
Asphalt and Road Oil	800	0	102	0	2	904	32
Miscellaneous Products	55	4	0	0	0	59	2
Total	**83,292**	**33,698**	**93,792**	**2,427**	**8,248**	**221,457**	**7,909**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-February 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**65,376**	**51,596**	**186,108**	**4,182**	**11,250**	**318,512**	**5,399**
Natural Gas Liquids	**3,674**	**8,156**	**2,146**	**830**	**449**	**15,255**	**259**
Pentanes Plus	361	74	2	149	0	586	10
Liquefied Petroleum Gases	3,313	8,082	2,144	681	449	14,669	249
Ethane/Ethylene	0	0	697	0	0	697	12
Propane/Propylene	2,308	5,537	254	396	224	8,719	148
Normal Butane/Butylene	999	2,234	957	274	163	4,627	78
Isobutane	6	311	236	11	62	626	11
Other Liquids	**10,935**	**0**	**14,374**	**0**	**55**	**25,364**	**430**
Unfinished Oils[a]	8,309	0	13,312	0	55	21,676	367
Naphthas and Lighter	479	0	4,547	0	0	5,026	85
Kerosene and Light Gas Oils	237	0	0	0	0	237	4
Heavy Gas Oils	7,204	0	3,838	0	55	11,097	188
Residuum	389	0	4,927	0	0	5,316	90
Motor Gasoline Blending Components	2,626	0	1,062	0	0	3,688	63
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**95,952**	**1,474**	**11,268**	**316**	**2,555**	**111,565**	**1,891**
Finished Motor Gasoline	20,763	171	237	86	540	21,797	369
Leaded	202	24	0	12	27	265	4
Unleaded	20,561	147	237	74	513	21,532	365
Finished Aviation Gasoline	0	0	0	0	44	44	1
Jet Fuel	4,576	149	1,156	0	109	5,990	102
Naphtha-Type	0	149	0	0	4	153	3
Kerosene-Type	4,576	0	1,156	0	105	5,837	99
Bonded Aircraft Fuel	1,689	0	1,156	0	62	2,907	49
Other	2,887	0	0	0	43	2,930	50
Kerosene	859	0	331	0	0	1,190	20
Distillate Fuel Oil	18,487	370	0	226	169	19,252	326
Bonded Ship Bunkers	124	0	0	0	0	124	2
Other	18,363	370	0	226	169	19,128	324
Residual Fuel Oil	48,580	364	796	0	1,603	51,343	870
Bonded Ship Bunkers	186	0	0	0	0	186	3
Other	48,394	364	796	0	1,603	51,157	867
Naphtha for Petrochemical Feedstock Use	338	88	5,161	0	54	5,641	96
Other Oils for Petrochemical Feedstock Use	0	0	3,066	0	0	3,066	52
Special Naphthas	18	241	330	1	13	603	10
Lubricants	699	55	0	0	0	754	13
Waxes	36	28	2	3	12	81	1
Petroleum Coke	22	0	60	0	6	88	1
Asphalt and Road Oil	1,464	0	129	0	5	1,598	27
Miscellaneous Products	110	8	0	0	0	118	2
Total	**175,937**	**61,226**	**213,896**	**5,328**	**14,309**	**470,696**	**7,978**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Tota
Arab OPEC	**49,422**	**1,109**	**2,808**	**0**	**437**	**148**	**0**	**2,604**	**458**	**0**	**3,0**
Algeria	1,749	1,109	0	0	217	0	0	2,604	458	0	3,0
Iraq	12,036	0	0	0	0	0	0	0	0	0	
Kuwait	2,200	0	0	0	0	0	0	0	0	0	
Saudi Arabia	32,953	0	2,808	0	220	148	0	0	0	0	
United Arab Emirates	484	0	0	0	0	0	0	0	0	0	
Other OPEC	**34,299**	**692**	**1,480**	**239**	**1,203**	**677**	**2,489**	**1,191**	**0**	**4,384**	**5,5**
Ecuador	1,880	0	0	0	0	0	0	0	0	178	17
Gabon	317	0	0	0	0	0	0	0	0	0	
Indonesia	6,818	0	100	0	0	0	0	987	0	270	1,2
Nigeria	14,976	0	0	0	0	0	0	204	0	0	2
Venezuela	10,308	692	1,380	239	1,203	677	2,489	0	0	3,936	3,9
Non OPEC	**63,635**	**5,730**	**6,699**	**2,507**	**9,324**	**2,523**	**6,514**	**5,154**	**4,706**	**5,662**	**15,5**
Angola	6,644	0	0	0	0	0	0	317	0	0	31
Argentina	0	0	10	0	0	0	100	0	684	0	6
Australia	761	0	0	0	0	0	0	147	0	0	14
Bahama Islands	0	0	0	0	0	0	0	10	200	451	6
Belgium	0	0	898	0	0	0	0	0	0	0	
Brazil	0	44	0	0	1,417	0	864	641	589	0	1,2
Cameroon	526	0	0	0	0	0	0	0	365	0	3
Canada	17,402	4,705	535	210	1,401	165	1,863	79	208	581	8
China, People's Republic of	728	0	0	0	156	0	0	0	0	0	
Colombia	2,945	0	0	0	0	0	0	0	0	1,153	1,1
Congo	0	0	0	0	0	0	0	165	0	0	16
Egypt	206	0	0	0	0	0	0	0	0	0	
France	0	131	157	0	248	0	0	0	0	0	
Germany, FR (W)	0	0	254	0	0	0	0	0	0	0	
Ghana	0	0	0	0	0	0	0	190	0	0	19
Greece	0	0	251	0	0	37	0	606	0	0	60
India	0	0	787	0	0	0	0	0	0	0	
Italy	322	19	80	22	1,061	0	0	0	356	0	35
Japan	0	6	0	0	0	0	8	0	0	0	
Korea, Republic of	0	0	0	0	0	15	0	0	0	0	
Malaysia	269	0	0	0	0	0	0	0	0	0	
Mexico	19,769	678	0	0	0	558	0	0	0	0	
Netherlands	0	0	377	0	2,462	0	0	328	0	0	32
Netherlands Antilles	0	0	241	252	209	0	0	0	0	365	36
Norway	6,223	0	0	0	0	0	0	0	307	0	30
Peru	0	0	0	0	0	0	0	0	222	989	1,21
Puerto Rico	0	0	93	169	0	0	0	0	0	0	
Romania	0	0	0	1,259	0	0	0	0	0	0	
Singapore	0	0	0	0	0	0	0	577	0	265	84
Spain	0	0	373	0	499	717	0	0	199	0	19
Sweden	0	0	737	0	0	0	216	0	163	0	16
Syria	0	0	179	0	0	0	0	0	0	0	
Thailand	440	0	0	0	0	0	0	0	0	0	
Trinidad and Tobago	2,379	0	0	0	0	0	210	0	0	0	
Turkey	0	0	0	0	0	0	0	0	0	338	33
United Kingdom	3,631	147	164	0	855	0	573	0	808	0	80
U.S.S.R.	0	0	0	0	0	0	323	0	0	0	
Virgin Islands	0	0	1,563	595	570	1,031	2,357	1,962	605	1,520	4,08
Zaire	899	0	0	0	0	0	0	0	0	0	
Other	491	0	0	0	446	0	0	132	0	0	13
Total	**147,356**	**7,531**	**10,987**	**2,746**	**10,964**	**3,348**	**9,003**	**8,949**	**5,164**	**10,046**	**24,15**

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**44**	**1,505**	**1,005**	**0**	**0**	**0**	**10,118**	**59,540**	**2,126**
Algeria	0	44	1,505	1,005	0	0	0	6,942	8,691	310
Iraq	0	0	0	0	0	0	0	0	12,036	430
Kuwait	0	0	0	0	0	0	0	0	2,200	79
Saudi Arabia	0	0	0	0	0	0	0	3,176	36,129	1,290
United Arab Emirates	0	0	0	0	0	0	0	0	484	17
Other OPEC	**0**	**1**	**0**	**0**	**0**	**545**	**0**	**12,901**	**47,200**	**1,686**
Ecuador	0	0	0	0	0	0	0	178	2,058	74
Gabon	0	0	0	0	0	0	0	0	317	11
Indonesia	0	0	0	0	0	0	0	1,357	8,175	292
Nigeria	0	0	0	0	0	0	0	204	15,180	542
Venezuela	0	1	0	0	0	545	0	11,162	21,470	767
Non OPEC	**148**	**239**	**711**	**0**	**378**	**359**	**428**	**51,082**	**114,717**	**4,097**
Angola	0	0	0	0	0	0	0	317	6,961	249
Argentina	0	18	0	0	0	0	0	812	812	29
Australia	0	0	0	0	0	0	0	147	908	32
Bahama Islands	0	0	0	0	0	0	0	661	661	24
Belgium	0	0	0	0	0	0	0	898	898	32
Brazil	0	0	0	0	0	0	2	3,557	3,557	127
Cameroon	0	0	0	0	0	0	0	365	891	32
Canada	69	185	82	0	60	16	175	10,334	27,736	991
China, People's Republic of	0	0	0	0	0	0	0	156	884	32
Colombia	0	0	0	0	0	0	0	1,153	4,098	146
Congo	0	0	0	0	0	0	0	165	165	6
Egypt	0	0	238	0	0	0	3	241	447	16
France	0	0	10	0	0	0	0	546	546	20
Germany, FR (W)	0	0	0	0	0	0	1	255	255	9
Ghana	0	0	0	0	0	0	0	190	190	7
Greece	0	0	0	0	0	0	0	894	894	32
India	0	0	207	0	0	0	0	994	994	36
Italy	0	5	21	0	0	0	0	1,564	1,886	67
Japan	0	0	18	0	0	0	29	61	61	2
Korea, Republic of	0	0	36	0	0	0	0	51	51	2
Malaysia	0	0	0	0	0	0	0	0	269	10
Mexico	0	0	0	0	0	8	155	1,399	21,168	756
Netherlands	0	7	0	0	19	0	5	3,198	3,198	114
Netherlands Antilles	0	0	0	0	0	171	0	1,238	1,238	44
Norway	0	0	0	0	0	0	0	307	6,530	233
Peru	0	0	0	0	0	0	0	1,211	1,211	43
Puerto Rico	0	24	41	0	299	0	54	680	680	24
Romania	0	0	0	0	0	0	0	1,259	1,259	45
Singapore	0	0	0	0	0	0	0	842	842	30
Spain	0	0	0	0	0	164	0	1,952	1,952	70
Sweden	0	0	0	0	0	0	0	1,116	1,116	40
Syria	0	0	0	0	0	0	0	179	179	6
Thailand	0	0	0	0	0	0	0	0	440	16
Trinidad and Tobago	0	0	0	0	0	0	0	210	2,589	92
Turkey	0	0	0	0	0	0	0	338	338	12
United Kingdom	0	0	0	0	0	0	2	2,549	6,180	221
U.S.S.R.	0	0	0	0	0	0	0	323	323	12
Virgin Islands	79	0	21	0	0	0	0	10,303	10,303	368
Zaire	0	0	0	0	0	0	0	0	899	32
Other	0	0	37	0	0	0	2	617	1,108	40
Total	**148**	**284**	**2,216**	**1,005**	**378**	**904**	**428**	**74,101**	**221,457**	**7,909**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
Arab OPEC	**7,607**	**685**	**167**	**0**	**437**	**148**	**0**	**2,604**	**458**	**0**	**3,06**
Algeria	0	685	0	0	217	0	0	2,604	458	0	3,06
Iraq	499	0	0	0	0	0	0	0	0	0	
Saudi Arabia	7,108	0	167	0	220	148	0	0	0	0	
Other OPEC	**7,038**	**692**	**663**	**0**	**1,203**	**500**	**2,489**	**204**	**0**	**4,384**	**4,58**
Ecuador	1,143	0	0	0	0	0	0	0	0	178	17
Indonesia	0	0	0	0	0	0	0	0	0	270	27
Nigeria	5,229	0	0	0	0	0	0	204	0	0	20
Venezuela	666	692	663	0	1,203	500	2,489	0	0	3,936	3,93
Non OPEC	**14,914**	**420**	**3,825**	**1,943**	**8,779**	**1,838**	**6,187**	**4,805**	**4,706**	**4,994**	**14,50**
Angola	2,540	0	0	0	0	0	0	317	0	0	31
Argentina	0	0	0	0	0	0	100	0	684	0	68
Bahama Islands	0	0	0	0	0	0	0	10	200	451	66
Belgium	0	0	388	0	0	0	0	0	0	0	
Brazil	0	0	0	0	1,417	0	864	641	589	0	1,23
Cameroon	526	0	0	0	0	0	0	0	365	0	36
Canada	1,598	420	368	210	1,012	90	1,544	0	208	516	72
China, People's Republic of	728	0	0	0	0	0	0	0	0	0	
Colombia	930	0	0	0	0	0	0	0	0	1,153	1,15
Congo	0	0	0	0	0	0	0	165	0	0	16
Egypt	0	0	0	0	0	0	0	0	0	0	
France	0	0	0	0	248	0	0	0	0	0	
Ghana	0	0	0	0	0	0	0	190	0	0	19
Greece	0	0	0	0	0	0	0	606	0	0	60
India	0	0	225	0	0	0	0	0	0	0	
Italy	322	0	0	22	1,061	0	0	0	356	0	35
Japan	0	0	0	0	0	0	0	0	0	0	
Mexico	1,925	0	0	0	0	0	0	0	0	0	
Netherlands	0	0	377	0	2,462	0	0	328	0	0	32
Netherlands Antilles	0	0	0	0	209	0	0	0	0	365	36
Norway	4,096	0	0	0	0	0	0	0	307	0	30
Peru	0	0	0	0	0	0	0	0	222	989	1,21
Puerto Rico	0	0	93	169	0	0	0	0	0	0	
Romania	0	0	0	1,259	0	0	0	0	0	0	
Singapore	0	0	0	0	0	0	0	454	0	0	45
Spain	0	0	373	0	499	717	0	0	199	0	19
Sweden	0	0	311	0	0	0	216	0	163	0	16
Trinidad and Tobago	0	0	0	0	0	0	210	0	0	0	
United Kingdom	2,045	0	164	0	855	0	573	0	808	0	80
U.S.S.R.	0	0	0	0	0	0	323	0	0	0	
Virgin Islands	0	0	1,526	283	570	1,031	2,357	1,962	605	1,520	4,087
Zaire	204	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	446	0	0	132	0	0	13
Total	**29,559**	**1,797**	**4,655**	**1,943**	**10,419**	**2,486**	**8,676**	**7,613**	**5,164**	**9,378**	**22,15**

See footnotes at end of table.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	4,499	12,106	432
Algeria	0	0	0	0	0	0	0	3,964	3,964	142
Iraq	0	0	0	0	0	0	0	0	499	18
Saudi Arabia	0	0	0	0	0	0	0	535	7,643	273
Other OPEC	0	1	0	0	0	451	0	10,587	17,625	629
Ecuador	0	0	0	0	0	0	0	178	1,321	47
Indonesia	0	0	0	0	0	0	0	270	270	10
Nigeria	0	0	0	0	0	0	0	204	5,433	194
Venezuela	0	1	0	0	0	451	0	9,935	10,601	379
Non OPEC	148	11	70	0	351	349	221	38,647	53,561	1,913
Angola	0	0	0	0	0	0	0	317	2,857	102
Argentina	0	0	0	0	0	0	0	784	784	28
Bahama Islands	0	0	0	0	0	0	0	661	661	24
Belgium	0	0	0	0	0	0	0	388	388	14
Brazil	0	0	0	0	0	0	2	3,513	3,513	125
Cameroon	0	0	0	0	0	0	0	365	891	32
Canada	69	6	19	0	33	14	10	4,519	6,117	218
China, People's Republic of	0	0	0	0	0	0	0	0	728	26
Colombia	0	0	0	0	0	0	0	1,153	2,083	74
Congo	0	0	0	0	0	0	0	165	165	6
Egypt	0	0	0	0	0	0	2	2	2	(s)
France	0	0	10	0	0	0	0	258	258	9
Ghana	0	0	0	0	0	0	0	190	190	7
Greece	0	0	0	0	0	0	0	606	606	22
India	0	0	0	0	0	0	0	225	225	8
Italy	0	5	0	0	0	0	0	1,444	1,766	63
Japan	0	0	0	0	0	0	3	3	3	(s)
Mexico	0	0	0	0	0	0	150	150	2,075	74
Netherlands	0	0	0	0	19	0	0	3,186	3,186	114
Netherlands Antilles	0	0	0	0	0	171	0	745	745	27
Norway	0	0	0	0	0	0	0	307	4,403	157
Peru	0	0	0	0	0	0	0	1,211	1,211	43
Puerto Rico	0	0	41	0	299	0	54	656	656	23
Romania	0	0	0	0	0	0	0	1,259	1,259	45
Singapore	0	0	0	0	0	0	0	454	454	16
Spain	0	0	0	0	0	164	0	1,952	1,952	70
Sweden	0	0	0	0	0	0	0	690	690	25
Trinidad and Tobago	0	0	0	0	0	0	0	210	210	8
United Kingdom	0	0	0	0	0	0	0	2,400	4,445	159
U.S.S.R.	0	0	0	0	0	0	0	323	323	12
Virgin Islands	79	0	0	0	0	0	0	9,933	9,933	355
Zaire	0	0	0	0	0	0	0	0	204	7
Other	0	0	0	0	0	0	0	578	578	21
Total	148	12	70	0	351	800	221	53,733	83,292	2,975

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**6,615**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	730	0	0	0	0	0	0	0	0	0	0
Iraq	1,114	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,771	0	0	0	0	0	0	0	0	0	0
Other OPEC	**6,413**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Indonesia	252	0	0	0	0	0	0	0	0	0	0
Nigeria	5,161	0	0	0	0	0	0	0	0	0	0
Venezuela	1,000	0	0	0	0	0	0	0	0	0	0
Non OPEC	**16,262**	**3,705**	**0**	**0**	**87**	**68**	**151**	**79**	**0**	**65**	**144**
Canada	13,103	3,705	0	0	87	68	151	79	0	65	144
Colombia	987	0	0	0	0	0	0	0	0	0	0
Egypt	206	0	0	0	0	0	0	0	0	0	0
Mexico	1,966	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**29,290**	**3,705**	**0**	**0**	**87**	**68**	**151**	**79**	**0**	**65**	**144**

See footnotes at end of table.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,615**	**236**
Algeria	0	0	0	0	0	0	0	0	730	26
Iraq	0	0	0	0	0	0	0	0	1,114	40
Saudi Arabia	0	0	0	0	0	0	0	0	4,771	170
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,413**	**229**
Indonesia	0	0	0	0	0	0	0	0	252	9
Nigeria	0	0	0	0	0	0	0	0	5,161	184
Venezuela	0	0	0	0	0	0	0	0	1,000	36
Non OPEC	**0**	**111**	**63**	**0**	**27**	**0**	**52**	**4,408**	**20,670**	**738**
Canada	0	111	63	0	27	0	51	4,407	17,510	625
Colombia	0	0	0	0	0	0	0	0	987	35
Egypt	0	0	0	0	0	0	0	0	206	7
Mexico	0	0	0	0	0	0	0	0	1,966	70
Other	0	0	0	0	0	0	1	1	1	(s)
Total	**0**	**111**	**63**	**0**	**27**	**0**	**52**	**4,408**	**33,698**	**1,204**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
Arab OPEC	**35,200**	**424**	**2,641**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	1,019	424	0	0	0	0	0	0	0	0	0
Iraq	10,423	0	0	0	0	0	0	0	0	0	0
Kuwait	2,200	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	21,074	0	2,641	0	0	0	0	0	0	0	0
United Arab Emirates	484	0	0	0	0	0	0	0	0	0	0
Other OPEC	**17,026**	**0**	**817**	**239**	**0**	**177**	**0**	**0**	**0**	**0**	**0**
Ecuador	737	0	0	0	0	0	0	0	0	0	0
Gabon	317	0	0	0	0	0	0	0	0	0	0
Indonesia	2,744	0	100	0	0	0	0	0	0	0	0
Nigeria	4,586	0	0	0	0	0	0	0	0	0	0
Venezuela	8,642	0	717	239	0	177	0	0	0	0	0
Non OPEC	**28,545**	**1,025**	**2,874**	**564**	**0**	**595**	**0**	**0**	**0**	**338**	**338**
Angola	4,104	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	10	0	0	0	0	0	0	0	0
Belgium	0	0	510	0	0	0	0	0	0	0	0
Brazil	0	44	0	0	0	0	0	0	0	0	0
Canada	257	0	167	0	0	0	0	0	0	0	0
Colombia	1,028	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	0	0	0
France	0	131	157	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	254	0	0	0	0	0	0	0	0
Greece	0	0	251	0	0	37	0	0	0	0	0
India	0	0	562	0	0	0	0	0	0	0	0
Italy	0	19	80	0	0	0	0	0	0	0	0
Japan	0	6	0	0	0	0	0	0	0	0	0
Mexico	15,878	678	0	0	0	558	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	241	252	0	0	0	0	0	0	0
Norway	2,127	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	426	0	0	0	0	0	0	0	0
Syria	0	0	179	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,379	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	338	338
United Kingdom	1,586	147	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	37	312	0	0	0	0	0	0	0
Zaire	695	0	0	0	0	0	0	0	0	0	0
Other	491	0	0	0	0	0	0	0	0	0	0
Total	**80,771**	**1,449**	**6,332**	**803**	**0**	**772**	**0**	**0**	**0**	**338**	**338**

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	44	1,505	1,005	0	0	0	5,619	40,819	1,458
Algeria	0	44	1,505	1,005	0	0	0	2,978	3,997	143
Iraq	0	0	0	0	0	0	0	0	10,423	372
Kuwait	0	0	0	0	0	0	0	0	2,200	79
Saudi Arabia	0	0	0	0	0	0	0	2,641	23,715	847
United Arab Emirates	0	0	0	0	0	0	0	0	484	17
Other OPEC	0	0	0	0	0	94	0	1,327	18,353	655
Ecuador	0	0	0	0	0	0	0	0	737	26
Gabon	0	0	0	0	0	0	0	0	317	11
Indonesia	0	0	0	0	0	0	0	100	2,844	102
Nigeria	0	0	0	0	0	0	0	0	4,586	164
Venezuela	0	0	0	0	0	94	0	1,227	9,869	352
Non OPEC	0	111	524	0	0	8	36	6,075	34,620	1,236
Angola	0	0	0	0	0	0	0	0	4,104	147
Argentina	0	18	0	0	0	0	0	28	28	1
Belgium	0	0	0	0	0	0	0	510	510	18
Brazil	0	0	0	0	0	0	0	44	44	2
Canada	0	62	0	0	0	0	0	229	486	17
Colombia	0	0	0	0	0	0	0	0	1,028	37
Egypt	0	0	238	0	0	0	1	239	239	9
France	0	0	0	0	0	0	0	288	288	10
Germany, FR (W)	0	0	0	0	0	0	1	255	255	9
Greece	0	0	0	0	0	0	0	288	288	10
India	0	0	207	0	0	0	0	769	769	27
Italy	0	0	21	0	0	0	0	120	120	4
Japan	0	0	0	0	0	0	26	32	32	1
Mexico	0	0	0	0	0	8	1	1,245	17,123	612
Netherlands	0	7	0	0	0	0	5	12	12	(s)
Netherlands Antilles	0	0	0	0	0	0	0	493	493	18
Norway	0	0	0	0	0	0	0	0	2,127	76
Puerto Rico	0	24	0	0	0	0	0	24	24	1
Sweden	0	0	0	0	0	0	0	426	426	15
Syria	0	0	0	0	0	0	0	179	179	6
Trinidad and Tobago	0	0	0	0	0	0	0	0	2,379	85
Turkey	0	0	0	0	0	0	0	338	338	12
United Kingdom	0	0	0	0	0	0	2	149	1,735	62
Virgin Islands	0	0	21	0	0	0	0	370	370	13
Zaire	0	0	0	0	0	0	0	0	695	25
Other	0	0	37	0	0	0	0	37	528	19
Total	0	155	2,029	1,005	0	102	36	13,021	93,792	3,350

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	**1,951**	**308**	**0**	**0**	**27**	**0**	**72**	**0**	**0**	**0**	**0**
Canada	1,951	308	0	0	27	0	72	0	0	0	0
Total	**1,951**	**308**	**0**	**0**	**27**	**0**	**72**	**0**	**0**	**0**	**0**
					PAD District V						
Other OPEC	**3,822**	**0**	**0**	**0**	**0**	**0**	**0**	**987**	**0**	**0**	**987**
Indonesia	3,822	0	0	0	0	0	0	987	0	0	987
Non OPEC	**1,963**	**272**	**0**	**0**	**431**	**22**	**104**	**270**	**0**	**265**	**535**
Australia	761	0	0	0	0	0	0	147	0	0	147
Canada	493	272	0	0	275	7	96	0	0	0	0
China, People's Republic of	0	0	0	0	156	0	0	0	0	0	0
Japan	0	0	0	0	0	0	8	0	0	0	0
Korea, Republic of	0	0	0	0	0	15	0	0	0	0	0
Malaysia	269	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	123	0	265	388
Thailand	440	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**5,785**	**272**	**0**	**0**	**431**	**22**	**104**	**1,257**	**0**	**265**	**1,522**

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
								PAD District IV		
Non OPEC	**0**	**1**	**0**	**0**	**0**	**0**	**68**	**476**	**2,427**	**87**
Canada	0	1	0	0	0	0	68	476	2,427	87
Total	**0**	**1**	**0**	**0**	**0**	**0**	**68**	**476**	**2,427**	**87**
								PAD District V		
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**987**	**4,809**	**172**
Indonesia	0	0	0	0	0	0	0	987	4,809	172
Non OPEC	**0**	**5**	**54**	**0**	**0**	**2**	**51**	**1,476**	**3,439**	**123**
Australia	0	0	0	0	0	0	0	147	908	32
Canada	0	5	0	0	0	2	46	703	1,196	43
China, People's Republic of	0	0	0	0	0	0	0	156	156	6
Japan	0	0	18	0	0	0	0	26	26	1
Korea, Republic of	0	0	36	0	0	0	0	51	51	2
Malaysia	0	0	0	0	0	0	0	0	269	10
Mexico	0	0	0	0	0	0	4	4	4	(s)
Singapore	0	0	0	0	0	0	0	388	388	14
Thailand	0	0	0	0	0	0	0	0	440	16
Other	0	0	0	0	0	0	1	1	1	(s)
Total	**0**	**5**	**54**	**0**	**0**	**2**	**51**	**2,463**	**8,248**	**295**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**107,171**	**1,839**	**4,794**	**91**	**1,805**	**390**	**624**	**4,444**	**458**	**0**	**4,902**
Algeria	4,632	1,839	503	0	217	0	230	4,444	458	0	4,902
Iraq	22,717	0	0	0	0	0	0	0	0	0	0
Kuwait	3,196	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	74,323	0	4,291	91	1,588	390	394	0	0	0	0
United Arab Emirates	2,303	0	0	0	0	0	0	0	0	0	0
Other OPEC	**79,454**	**1,104**	**4,092**	**479**	**2,515**	**1,561**	**5,759**	**2,433**	**0**	**8,076**	**10,509**
Ecuador	3,306	0	0	0	0	0	0	0	0	359	359
Gabon	317	0	0	0	0	0	0	0	0	0	0
Indonesia	12,836	0	100	0	0	0	0	1,416	0	371	1,787
Nigeria	38,116	0	0	0	0	0	0	204	0	0	204
Venezuela	24,879	1,104	3,992	479	2,515	1,561	5,759	813	0	7,346	8,159
Non OPEC	**131,887**	**11,726**	**12,790**	**3,118**	**17,477**	**4,039**	**12,869**	**10,980**	**10,130**	**14,822**	**35,932**
Angola	10,511	0	0	0	0	0	0	317	0	0	317
Argentina	0	0	10	0	223	0	273	0	1,257	0	1,257
Australia	1,360	0	0	0	0	0	0	147	0	0	147
Bahama Islands	0	0	0	0	0	0	0	10	400	1,942	2,352
Belgium	0	0	1,199	0	0	0	0	0	0	0	0
Brazil	0	44	0	0	2,748	0	1,484	1,246	891	0	2,137
Brunei	217	0	0	0	0	0	0	0	0	0	0
Cameroon	526	0	0	0	0	0	0	0	690	0	690
Canada	37,017	10,118	875	210	2,593	453	4,375	210	423	1,096	1,729
China, People's Republic of	1,919	0	0	0	156	0	0	0	0	0	0
Colombia	9,276	0	0	0	0	0	173	0	383	2,367	2,750
Congo	0	0	0	0	0	0	0	330	0	0	330
Denmark	0	0	0	0	0	0	0	0	321	0	321
Egypt	206	0	0	0	0	0	0	0	0	0	0
France	0	277	157	0	1,418	0	0	0	225	0	225
Germany, FR (W)	0	39	254	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	320	0	0	320
Greece	0	0	251	0	0	37	0	695	0	0	695
India	0	0	1,601	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Italy	322	19	236	22	1,367	0	0	0	356	0	356
Japan	0	12	0	0	0	0	8	0	0	0	0
Korea, Republic of	0	0	0	0	0	15	0	0	0	0	0
Malaysia	2,411	0	0	0	0	0	0	0	0	0	0
Mexico	42,951	841	0	0	0	1,193	0	0	0	820	820
Netherlands	0	0	939	0	3,514	0	0	328	0	312	640
Netherlands Antilles	0	0	241	252	209	0	180	190	221	1,617	2,028
Norway	7,256	0	0	0	0	0	0	0	307	0	307
Oman	311	0	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	202	0	0	0	0	0	716	1,989	2,705
Puerto Rico	0	0	214	169	0	0	0	0	0	0	0
Romania	0	0	0	1,278	0	0	0	0	308	0	308
Singapore	0	0	253	0	0	0	0	1,199	0	265	1,464
Spain	0	0	1,414	0	2,032	717	166	0	199	0	199
Sweden	0	0	737	0	0	0	216	0	326	0	326
Syria	0	0	179	0	0	0	0	0	0	0	0
Thailand	1,202	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	4,819	0	0	0	0	0	307	0	0	0	0
Turkey	0	81	0	0	0	0	0	0	0	338	338
United Kingdom	7,913	233	164	28	1,722	0	573	0	1,671	291	1,962
U.S.S.R.	0	0	359	0	0	0	567	0	0	0	0
Virgin Islands	0	0	3,503	1,159	1,049	1,612	4,547	5,755	965	3,604	10,324
Zaire	1,351	0	0	0	0	0	0	101	0	0	101
Other	2,319	62	2	0	446	12	0	132	250	0	382
Total	**318,512**	**14,669**	**21,676**	**3,688**	**21,797**	**5,990**	**19,252**	**17,857**	**10,588**	**22,898**	**51,343**

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	44	3,068	3,026	0	0	0	20,583	127,754	2,165
Algeria	0	44	3,068	3,026	0	0	0	13,829	18,461	313
Iraq	0	0	0	0	0	0	0	0	22,717	385
Kuwait	0	0	0	0	0	0	0	0	3,196	54
Saudi Arabia	0	0	0	0	0	0	0	6,754	81,077	1,374
United Arab Emirates	0	0	0	0	0	0	0	0	2,303	39
Other OPEC	0	1	349	0	0	1,063	0	27,432	106,886	1,812
Ecuador	0	0	0	0	0	0	0	359	3,665	62
Gabon	0	0	0	0	0	0	0	0	317	5
Indonesia	0	0	0	0	0	0	0	1,887	14,723	250
Nigeria	0	0	0	0	0	0	0	204	38,320	649
Venezuela	0	1	349	0	0	1,063	0	24,982	49,861	845
Non OPEC	1,190	558	2,224	40	754	535	917	104,169	236,056	4,001
Angola	0	0	0	0	0	0	0	317	10,828	184
Argentina	0	43	0	40	0	0	0	1,846	1,846	31
Australia	0	0	0	0	0	0	0	147	1,507	26
Bahama Islands	0	0	0	0	0	0	0	2,352	2,352	40
Belgium	0	0	0	0	0	0	0	1,199	1,199	20
Brazil	0	25	0	0	0	0	3	6,441	6,441	109
Brunei	0	0	0	0	0	0	0	0	217	4
Cameroon	0	0	0	0	0	0	0	690	1,216	21
Canada	166	454	126	0	125	21	321	21,566	58,583	993
China, People's Republic of	0	0	0	0	0	0	0	156	2,075	35
Colombia	0	0	0	0	0	0	0	2,923	12,199	207
Congo	0	0	0	0	0	0	0	330	330	6
Denmark	0	0	0	0	0	0	0	321	321	5
Egypt	0	0	238	0	0	0	4	242	448	8
France	0	0	10	0	0	0	0	2,087	2,087	35
Germany, FR (W)	0	0	0	0	0	0	3	296	296	5
Ghana	0	0	0	0	0	0	0	320	320	5
Greece	0	0	0	0	0	0	0	983	983	17
India	0	0	761	0	0	0	0	2,362	2,362	40
Ireland	0	0	0	0	0	0	0	221	221	4
Italy	0	5	153	0	0	0	0	2,158	2,480	42
Japan	0	0	25	0	0	0	79	124	124	2
Korea, Republic of	0	0	36	0	0	0	0	51	51	1
Malaysia	0	0	0	0	0	0	0	0	2,411	41
Mexico	0	0	0	0	0	16	369	3,239	46,190	783
Netherlands	0	7	49	0	48	0	5	5,202	5,202	88
Netherlands Antilles	0	0	0	0	0	171	0	3,081	3,081	52
Norway	0	0	0	0	0	0	0	307	7,563	128
Oman	0	0	0	0	0	0	0	0	311	5
Panama	0	0	0	0	0	0	0	181	181	3
Peru	0	0	0	0	0	0	0	2,907	2,907	49
Puerto Rico	0	24	498	0	581	0	109	1,595	1,595	27
Romania	0	0	0	0	0	0	0	1,586	1,586	27
Singapore	0	0	0	0	0	0	0	1,717	1,717	29
Spain	0	0	222	0	0	327	0	5,077	5,077	86
Sweden	0	0	0	0	0	0	0	1,279	1,279	22
Syria	0	0	0	0	0	0	0	179	179	3
Thailand	0	0	0	0	0	0	0	0	1,202	20
Trinidad and Tobago	134	0	0	0	0	0	0	441	5,260	89
Turkey	0	0	0	0	0	0	0	419	419	7
United Kingdom	0	0	0	0	0	0	2	4,684	12,597	214
U.S.S.R.	0	0	0	0	0	0	0	926	926	16
Virgin Islands	890	0	69	0	0	0	0	23,153	23,153	392
Zaire	0	0	0	0	0	0	0	101	1,452	25
Other	0	0	37	0	0	0	22	963	3,282	56
Total	1,190	603	5,641	3,066	754	1,598	917	152,184	470,696	7,978

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**15,429**	**1,415**	**303**	**91**	**1,805**	**390**	**624**	**4,444**	**458**	**0**	**4,902**
Algeria	0	1,415	136	0	217	0	230	4,444	458	0	4,902
Iraq	499	0	0	0	0	0	0	0	0	0	0
Kuwait	464	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	14,466	0	167	91	1,588	390	394	0	0	0	0
Other OPEC	**22,834**	**992**	**663**	**0**	**2,278**	**1,368**	**5,759**	**1,089**	**0**	**8,076**	**9,165**
Ecuador	2,174	0	0	0	0	0	0	0	0	359	359
Indonesia	0	0	0	0	0	0	0	429	0	371	800
Nigeria	18,600	0	0	0	0	0	0	204	0	0	204
Venezuela	2,060	992	663	0	2,278	1,368	5,759	456	0	7,346	7,802
Non OPEC	**27,113**	**906**	**7,343**	**2,535**	**16,680**	**2,818**	**12,104**	**10,419**	**10,130**	**13,964**	**34,513**
Angola	5,384	0	0	0	0	0	0	317	0	0	317
Argentina	0	0	0	0	223	0	273	0	1,257	0	1,257
Bahama Islands	0	0	0	0	0	0	0	10	400	1,942	2,352
Belgium	0	0	388	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	2,748	0	1,484	1,246	891	0	2,137
Cameroon	526	0	0	0	0	0	0	0	690	0	690
Canada	3,699	906	373	210	1,952	288	3,618	0	423	942	1,365
China, People's Republic of	1,478	0	0	0	0	0	0	0	0	0	0
Colombia	2,375	0	0	0	0	0	173	0	383	2,367	2,750
Congo	0	0	0	0	0	0	0	330	0	0	330
Denmark	0	0	0	0	0	0	0	0	321	0	321
Egypt	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	1,418	0	0	0	225	0	225
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	320	0	0	320
Greece	0	0	0	0	0	0	0	695	0	0	695
India	0	0	469	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Italy	322	0	0	22	1,367	0	0	0	356	0	356
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	3,976	0	0	0	0	189	0	0	0	719	719
Netherlands	0	0	723	0	3,514	0	0	328	0	312	640
Netherlands Antilles	0	0	0	0	209	0	180	190	221	1,617	2,028
Norway	5,129	0	0	0	0	0	0	0	307	0	307
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	0	716	1,989	2,705
Puerto Rico	0	0	214	169	0	0	0	0	0	0	0
Romania	0	0	0	1,259	0	0	0	0	308	0	308
Singapore	0	0	253	0	0	0	0	995	0	0	995
Spain	0	0	982	0	2,032	717	166	0	199	0	199
Sweden	0	0	311	0	0	0	216	0	326	0	326
Trinidad and Tobago	430	0	0	0	0	0	307	0	0	0	0
United Kingdom	3,590	0	164	28	1,722	0	573	0	1,671	291	1,962
U.S.S.R.	0	0	0	0	0	0	567	0	0	0	0
Virgin Islands	0	0	3,466	847	1,049	1,612	4,547	5,755	965	3,604	10,324
Zaire	204	0	0	0	0	0	0	101	0	0	101
Other	0	0	0	0	446	12	0	132	250	0	382
Total	**65,376**	**3,313**	**8,309**	**2,626**	**20,763**	**4,576**	**18,487**	**15,952**	**10,588**	**22,040**	**48,580**

See footnotes at end of table.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	9,530	24,959	423
Algeria	0	0	0	0	0	0	0	6,900	6,900	117
Iraq	0	0	0	0	0	0	0	0	499	8
Kuwait	0	0	0	0	0	0	0	0	464	8
Saudi Arabia	0	0	0	0	0	0	0	2,630	17,096	290
Other OPEC	0	1	0	0	0	950	0	21,176	44,010	746
Ecuador	0	0	0	0	0	0	0	359	2,533	43
Indonesia	0	0	0	0	0	0	0	800	800	14
Nigeria	0	0	0	0	0	0	0	204	18,804	319
Venezuela	0	1	0	0	0	950	0	19,813	21,873	371
Non OPEC	859	17	338	0	699	514	529	79,855	106,968	1,813
Angola	0	0	0	0	0	0	0	317	5,701	97
Argentina	0	0	0	0	0	0	0	1,753	1,753	30
Bahama Islands	0	0	0	0	0	0	0	2,352	2,352	40
Belgium	0	0	0	0	0	0	0	388	388	7
Brazil	0	0	0	0	0	0	3	6,372	6,372	108
Cameroon	0	0	0	0	0	0	0	690	1,216	21
Canada	166	12	38	0	70	16	14	9,028	12,727	216
China, People's Republic of	0	0	0	0	0	0	0	0	1,478	25
Colombia	0	0	0	0	0	0	0	2,923	5,298	90
Congo	0	0	0	0	0	0	0	330	330	6
Denmark	0	0	0	0	0	0	0	321	321	5
Egypt	0	0	0	0	0	0	3	3	3	(s)
France	0	0	10	0	0	0	0	1,653	1,653	28
Germany, FR (W)	0	0	0	0	0	0	2	2	2	(s)
Ghana	0	0	0	0	0	0	0	320	320	5
Greece	0	0	0	0	0	0	0	695	695	12
India	0	0	0	0	0	0	0	469	469	8
Ireland	0	0	0	0	0	0	0	221	221	4
Italy	0	5	0	0	0	0	0	1,750	2,072	35
Japan	0	0	0	0	0	0	26	26	26	(s)
Mexico	0	0	0	0	0	0	361	1,269	5,245	89
Netherlands	0	0	0	0	48	0	0	4,925	4,925	83
Netherlands Antilles	0	0	0	0	0	171	0	2,588	2,588	44
Norway	0	0	0	0	0	0	0	307	5,436	92
Panama	0	0	0	0	0	0	0	181	181	3
Peru	0	0	0	0	0	0	0	2,705	2,705	46
Puerto Rico	0	0	290	0	581	0	109	1,363	1,363	23
Romania	0	0	0	0	0	0	0	1,567	1,567	27
Singapore	0	0	0	0	0	0	0	1,248	1,248	21
Spain	0	0	0	0	0	327	0	4,423	4,423	75
Sweden	0	0	0	0	0	0	0	853	853	14
Trinidad and Tobago	134	0	0	0	0	0	0	441	871	15
United Kingdom	0	0	0	0	0	0	0	4,449	8,039	136
U.S.S.R.	0	0	0	0	0	0	0	567	567	10
Virgin Islands	559	0	0	0	0	0	0	22,404	22,404	380
Zaire	0	0	0	0	0	0	0	101	305	5
Other	0	0	0	0	0	0	11	851	851	14
Total	859	18	338	0	699	1,464	529	110,561	175,937	2,982

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**12,584**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	730	0	0	0	0	0	0	0	0	0	0
Iraq	2,564	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	9,290	0	0	0	0	0	0	0	0	0	0
Other OPEC	**8,286**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Indonesia	252	0	0	0	0	0	0	0	0	0	0
Nigeria	5,996	0	0	0	0	0	0	0	0	0	0
Venezuela	2,038	0	0	0	0	0	0	0	0	0	0
Non OPEC	**30,726**	**8,082**	**0**	**0**	**171**	**149**	**370**	**210**	**0**	**154**	**364**
Canada	27,567	8,082	0	0	171	149	370	210	0	154	364
Colombia	987	0	0	0	0	0	0	0	0	0	0
Egypt	206	0	0	0	0	0	0	0	0	0	0
Mexico	1,966	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**51,596**	**8,082**	**0**	**0**	**171**	**149**	**370**	**210**	**0**	**154**	**364**

See footnotes at end of table.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12,584**	**213**
Algeria	0	0	0	0	0	0	0	0	730	12
Iraq	0	0	0	0	0	0	0	0	2,564	43
Saudi Arabia	0	0	0	0	0	0	0	0	9,290	157
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,286**	**140**
Indonesia	0	0	0	0	0	0	0	0	252	4
Nigeria	0	0	0	0	0	0	0	0	5,996	102
Venezuela	0	0	0	0	0	0	0	0	2,038	35
Non OPEC	**0**	**241**	**88**	**0**	**55**	**0**	**110**	**9,630**	**40,356**	**684**
Canada	0	241	88	0	55	0	100	9,620	37,187	630
Colombia	0	0	0	0	0	0	0	0	987	17
Egypt	0	0	0	0	0	0	0	0	206	3
Mexico	0	0	0	0	0	0	0	0	1,966	33
Other	0	0	0	0	0	0	10	10	10	(s)
Total	**0**	**241**	**88**	**0**	**55**	**0**	**110**	**9,630**	**61,226**	**1,038**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**79,158**	**424**	**4,491**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	3,902	424	367	0	0	0	0	0	0	0	0
Iraq	19,654	0	0	0	0	0	0	0	0	0	0
Kuwait	2,732	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	50,567	0	4,124	0	0	0	0	0	0	0	0
United Arab Emirates	2,303	0	0	0	0	0	0	0	0	0	0
Other OPEC	**41,943**	**112**	**3,429**	**479**	**237**	**177**	**0**	**357**	**0**	**0**	**357**
Ecuador	1,132	0	0	0	0	0	0	0	0	0	0
Gabon	317	0	0	0	0	0	0	0	0	0	0
Indonesia	6,193	0	100	0	0	0	0	0	0	0	0
Nigeria	13,520	0	0	0	0	0	0	0	0	0	0
Venezuela	20,781	112	3,329	479	237	177	0	357	0	0	357
Non OPEC	**65,007**	**1,608**	**5,392**	**583**	**0**	**979**	**0**	**0**	**0**	**439**	**439**
Angola	5,127	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	10	0	0	0	0	0	0	0	0
Belgium	0	0	811	0	0	0	0	0	0	0	0
Brazil	0	44	0	0	0	0	0	0	0	0	0
Canada	878	0	447	0	0	0	0	0	0	0	0
Colombia	5,914	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	0	0	0
France	0	277	157	0	0	0	0	0	0	0	0
Germany, FR (W)	0	39	254	0	0	0	0	0	0	0	0
Greece	0	0	251	0	0	37	0	0	0	0	0
India	0	0	1,132	0	0	0	0	0	0	0	0
Italy	0	19	236	0	0	0	0	0	0	0	0
Japan	0	12	0	0	0	0	0	0	0	0	0
Malaysia	1,463	0	0	0	0	0	0	0	0	0	0
Mexico	37,009	841	0	0	0	942	0	0	0	101	101
Netherlands	0	0	216	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	241	252	0	0	0	0	0	0	0
Norway	2,127	0	0	0	0	0	0	0	0	0	0
Oman	311	0	0	0	0	0	0	0	0	0	0
Peru	0	0	202	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	19	0	0	0	0	0	0	0
Spain	0	0	432	0	0	0	0	0	0	0	0
Sweden	0	0	426	0	0	0	0	0	0	0	0
Syria	0	0	179	0	0	0	0	0	0	0	0
Trinidad and Tobago	4,389	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	0	0	0	0	0	0	0	338	338
United Kingdom	4,323	233	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	359	0	0	0	0	0	0	0	0
Virgin Islands	0	0	37	312	0	0	0	0	0	0	0
Zaire	1,147	0	0	0	0	0	0	0	0	0	0
Other	2,319	62	2	0	0	0	0	0	0	0	0
Total	**186,108**	**2,144**	**13,312**	**1,062**	**237**	**1,156**	**0**	**357**	**0**	**439**	**796**

See footnotes at end of table.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**44**	**3,068**	**3,026**	**0**	**0**	**0**	**11,053**	**90,211**	**1,529**
Algeria	0	44	3,068	3,026	0	0	0	6,929	10,831	184
Iraq	0	0	0	0	0	0	0	0	19,654	333
Kuwait	0	0	0	0	0	0	0	0	2,732	46
Saudi Arabia	0	0	0	0	0	0	0	4,124	54,691	927
United Arab Emirates	0	0	0	0	0	0	0	0	2,303	39
Other OPEC	**0**	**0**	**349**	**0**	**0**	**113**	**0**	**5,253**	**47,196**	**800**
Ecuador	0	0	0	0	0	0	0	0	1,132	19
Gabon	0	0	0	0	0	0	0	0	317	5
Indonesia	0	0	0	0	0	0	0	100	6,293	107
Nigeria	0	0	0	0	0	0	0	0	13,520	229
Venezuela	0	0	349	0	0	113	0	5,153	25,934	440
Non OPEC	**331**	**286**	**1,744**	**40**	**0**	**16**	**64**	**11,482**	**76,489**	**1,296**
Angola	0	0	0	0	0	0	0	0	5,127	87
Argentina	0	43	0	40	0	0	0	93	93	2
Belgium	0	0	0	0	0	0	0	811	811	14
Brazil	0	25	0	0	0	0	0	69	69	1
Canada	0	187	0	0	0	0	0	634	1,512	26
Colombia	0	0	0	0	0	0	0	0	5,914	100
Egypt	0	0	238	0	0	0	1	239	239	4
France	0	0	0	0	0	0	0	434	434	7
Germany, FR (W)	0	0	0	0	0	0	1	294	294	5
Greece	0	0	0	0	0	0	0	288	288	5
India	0	0	761	0	0	0	0	1,893	1,893	32
Italy	0	0	153	0	0	0	0	408	408	7
Japan	0	0	7	0	0	0	53	72	72	1
Malaysia	0	0	0	0	0	0	0	0	1,463	25
Mexico	0	0	0	0	0	16	2	1,902	38,911	660
Netherlands	0	7	49	0	0	0	5	277	277	5
Netherlands Antilles	0	0	0	0	0	0	0	493	493	8
Norway	0	0	0	0	0	0	0	0	2,127	36
Oman	0	0	0	0	0	0	0	0	311	5
Peru	0	0	0	0	0	0	0	202	202	3
Puerto Rico	0	24	208	0	0	0	0	232	232	4
Romania	0	0	0	0	0	0	0	19	19	(s)
Spain	0	0	222	0	0	0	0	654	654	11
Sweden	0	0	0	0	0	0	0	426	426	7
Syria	0	0	0	0	0	0	0	179	179	3
Trinidad and Tobago	0	0	0	0	0	0	0	0	4,389	74
Turkey	0	0	0	0	0	0	0	419	419	7
United Kingdom	0	0	0	0	0	0	2	235	4,558	77
U.S.S.R.	0	0	0	0	0	0	0	359	359	6
Virgin Islands	331	0	69	0	0	0	0	749	749	13
Zaire	0	0	0	0	0	0	0	0	1,147	19
Other	0	0	37	0	0	0	0	101	2,420	41
Total	**331**	**330**	**5,161**	**3,066**	**0**	**129**	**64**	**27,788**	**213,896**	**3,625**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	**4,182**	**681**	**0**	**0**	**86**	**0**	**226**	**0**	**0**	**0**	**0**
Canada	4,182	681	0	0	86	0	226	0	0	0	0
Total	**4,182**	**681**	**0**	**0**	**86**	**0**	**226**	**0**	**0**	**0**	**0**
					PAD District V						
Other OPEC	**6,391**	**0**	**0**	**0**	**0**	**16**	**0**	**987**	**0**	**0**	**987**
Indonesia	6,391	0	0	0	0	0	0	987	0	0	987
Venezuela	0	0	0	0	0	16	0	0	0	0	0
Non OPEC	**4,859**	**449**	**55**	**0**	**540**	**93**	**169**	**351**	**0**	**265**	**616**
Australia	1,360	0	0	0	0	0	0	147	0	0	147
Brunei	217	0	0	0	0	0	0	0	0	0	0
Canada	691	449	55	0	384	16	161	0	0	0	0
China, People's Republic of	441	0	0	0	156	0	0	0	0	0	0
Japan	0	0	0	0	0	0	8	0	0	0	0
Korea, Republic of	0	0	0	0	0	15	0	0	0	0	0
Malaysia	948	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	62	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	204	0	265	469
Thailand	1,202	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**11,250**	**449**	**55**	**0**	**540**	**109**	**169**	**1,338**	**0**	**265**	**1,603**

See footnotes at end of table.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-February 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**1**	**0**	**0**	**0**	**0**	**152**	**1,146**	5,328	90
Canada	0	1	0	0	0	0	152	1,146	5,328	90
Total	**0**	**1**	**0**	**0**	**0**	**0**	**152**	**1,146**	5,328	90
					PAD District V					
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,003**	**7,394**	125
Indonesia	0	0	0	0	0	0	0	987	7,378	125
Venezuela	0	0	0	0	0	0	0	16	16	(s)
Non OPEC	**0**	**13**	**54**	**0**	**0**	**5**	**62**	**2,056**	**6,915**	117
Australia	0	0	0	0	0	0	0	147	1,507	26
Brunei	0	0	0	0	0	0	0	0	217	4
Canada	0	13	0	0	0	5	55	1,138	1,829	31
China, People's Republic of	0	0	0	0	0	0	0	156	597	10
Japan	0	0	18	0	0	0	0	26	26	(s)
Korea, Republic of	0	0	36	0	0	0	0	51	51	1
Malaysia	0	0	0	0	0	0	0	0	948	16
Mexico	0	0	0	0	0	0	6	68	68	1
Singapore	0	0	0	0	0	0	0	469	469	8
Thailand	0	0	0	0	0	0	0	0	1,202	20
Other	0	0	0	0	0	0	1	1	1	(s)
Total	**0**	**13**	**54**	**0**	**0**	**5**	**62**	**3,059**	**14,309**	243

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, February 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**0**	**440**	**0**	**0**	**5,398**	**5,838**	**208**
Natural Gas Liquids	**54**	**118**	**608**	**2**	**276**	**1,057**	**38**
Pentanes Plus	40	24	107	1	10	184	7
Liquefied Petroleum Gases	13	94	500	(s)	265	873	31
Ethane/Ethylene	5	0	0	0	1	6	(s)
Propane/Propylene	6	76	385	(s)	252	721	26
Normal Butane/Butylene	2	17	115	0	12	147	5
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**795**	**97**	**7,359**	**3**	**9,345**	**17,600**	**629**
Finished Motor Gasoline	7	6	398	0	251	662	24
Naphtha-Type Jet Fuel	1	(s)	25	1	0	28	1
Kerosene-Type Jet Fuel	(s)	1	224	0	342	566	20
Kerosene	3	2	1	0	0	5	(s)
Distillate Fuel Oil	255	4	2,065	0	2,256	4,581	164
Residual Fuel Oil	91	0	904	0	3,092	4,087	146
Naphtha for Petrochemical Feedstock Use	21	4	47	0	3	75	3
Other Oils for Petrochemical Feedstock Use	(s)	7	187	0	233	427	15
Special Naphthas	209	5	9	(s)	2	227	8
Lubricants	134	28	256	1	89	508	18
Waxes	6	2	27	(s)	11	46	2
Petroleum Coke	47	28	3,197	0	3,048	6,320	226
Asphalt	2	6	15	(s)	17	41	1
Miscellaneous Products	18	2	4	0	2	26	1
Total	**849**	**654**	**7,967**	**5**	**15,019**	**24,494**	**875**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-February 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**(s)**	**899**	**0**	**0**	**9,159**	**10,059**	**170**
Natural Gas Liquids	**98**	**149**	**1,161**	**2**	**549**	**1,958**	**33**
Pentanes Plus	73	35	257	1	141	508	9
Liquefied Petroleum Gases	25	114	904	(s)	407	1,450	25
Ethane/Ethylene	7	0	0	0	1	8	(s)
Propane/Propylene	12	88	656	(s)	392	1,149	19
Normal Butane/Butylene	6	25	248	0	14	293	5
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**1,147**	**382**	**15,619**	**9**	**18,887**	**36,044**	**611**
Finished Motor Gasoline	9	13	981	0	685	1,688	29
Naphtha-Type Jet Fuel	1	(s)	44	2	0	48	1
Kerosene-Type Jet Fuel	(s)	2	1,113	0	1,748	2,863	49
Kerosene	5	2	28	0	(s)	36	1
Distillate Fuel Oil	265	7	3,268	0	4,451	7,991	135
Residual Fuel Oil	96	0	2,292	0	6,395	8,783	149
Naphtha for Petrochemical Feedstock Use	32	5	119	0	5	162	3
Other Oils for Petrochemical Feedstock Use	(s)	8	615	0	404	1,027	17
Special Naphthas	396	10	52	(s)	3	462	8
Lubricants	222	49	449	5	194	919	16
Waxes	10	4	67	(s)	18	99	2
Petroleum Coke	69	271	6,557	(s)	4,954	11,851	201
Asphalt	4	7	15	1	25	52	1
Miscellaneous Products	37	3	18	(s)	5	63	1
Total	**1,245**	**1,430**	**16,780**	**11**	**28,595**	**48,061**	**815**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, February 1989
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	0	0	0
Australia	0	6	2	0	0	0	398	0	9
Bahama Islands	0	0	25	46	0	0	178	259	0
Bahrain	0	0	0	0	0	0	0	0	0
Belgium & Luxembourg	0	0	0	(s)	0	0	0	0	6
Brazil	0	0	0	0	0	0	(s)	0	0
Cameroon	0	0	0	0	0	0	0	0	0
Canada	440	28	99	80	115	4	1,169	443	4
Chile	0	0	0	0	0	0	(s)	0	1
China, Taiwan	0	3	0	0	0	0	1,013	1,279	1
Colombia	0	0	1	0	0	0	0	0	0
Costa Rica	0	0	(s)	0	0	0	137	0	(s)
Denmark	0	0	(s)	0	0	0	0	0	0
Dominican Republic	0	0	(s)	0	0	0	(s)	0	0
Ecuador	0	0	0	0	0	0	0	0	1
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	45	0	0
Finland	0	0	0	0	0	0	0	0	0
France	0	0	1	0	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	32	0
Germany, FR (W)	0	0	9	(s)	0	0	0	0	(s)
Greece	0	0	0	0	0	0	0	0	0
Guatemala	0	0	89	0	0	0	1	0	3
Honduras	0	0	0	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0	1	0	0
India	0	0	0	0	0	0	0	0	1
Indonesia	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	224	0	(s)	231	0
Italy	0	0	36	0	0	0	0	0	(s)
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	70	0	(s)	30	200	0
Japan	0	0	5	132	230	0	278	0	1
Korea, Republic of	0	0	2	0	0	0	24	112	2
Kuwait	0	0	0	0	0	0	0	0	0
Lebanon	0	0	(s)	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	(s)
Mexico	0	110	588	183	(s)	(s)	490	1,317	5
Netherlands	0	0	1	(s)	0	0	(s)	213	30
Netherlands Antilles	0	0	0	45	0	0	125	0	0
New Zealand	0	2	0	0	0	0	(s)	0	0
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	25	0	530	0	0
Peru	0	0	0	0	0	0	0	0	0
Philippines	0	0	(s)	0	0	0	0	0	0
Puerto Rico	391	35	14	66	(s)	(s)	2	(s)	9
Saudi Arabia	0	0	(s)	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	147	0	1
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	1
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	1
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	1	0	0	0	0	0	(s)
U.S.S.R.	0	0	0	0	0	0	0	0	(s)
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	0
Virgin Islands	5,007	0	0	8	0	0	0	0	0
Other	0	0	(s)	33	0	(s)	11	0	(s)
Total	**5,838**	**184**	**873**	**662**	**594**	**5**	**4,581**	**4,087**	**75**

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, February 1989 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	7	(s)	0	0	(s)	8	(s)
Australia	0	0	6	1	203	1	(s)	625	22
Bahama Islands	0	0	3	(s)	0	1	0	511	18
Bahrain	0	0	0	0	29	0	0	29	1
Belgium & Luxembourg	0	(s)	11	(s)	648	1	(s)	667	24
Brazil	0	(s)	(s)	(s)	55	0	0	56	2
Cameroon	0	0	0	0	38	0	0	38	1
Canada	7	10	84	4	184	7	8	2,686	96
Chile	0	0	39	(s)	0	0	(s)	41	1
China, Taiwan	0	(s)	28	(s)	27	(s)	2	2,354	84
Colombia	0	0	1	(s)	0	0	(s)	2	(s)
Costa Rica	0	1	7	(s)	0	0	0	145	5
Denmark	0	0	(s)	0	31	(s)	0	32	1
Dominican Republic	0	(s)	2	(s)	0	(s)	0	4	(s)
Ecuador	0	0	1	(s)	0	(s)	0	3	(s)
Egypt	0	0	(s)	0	0	(s)	(s)	(s)	(s)
El Salvador	0	0	2	0	0	0	0	47	2
Finland	0	0	(s)	0	0	0	0	(s)	(s)
France	62	0	1	6	(s)	4	(s)	74	3
French Pacific Islands	0	0	(s)	0	0	0	(s)	33	1
Germany, FR (W)	0	0	1	1	27	7	(s)	45	2
Greece	0	0	(s)	0	0	0	(s)	1	(s)
Guatemala	0	(s)	9	(s)	0	0	0	102	4
Honduras	0	(s)	1	(s)	0	0	0	1	(s)
Hong Kong	0	0	1	(s)	(s)	0	(s)	2	(s)
India	0	0	40	1	0	0	2	43	2
Indonesia	0	0	(s)	(s)	105	0	(s)	105	4
Israel	0	0	3	(s)	0	0	(s)	458	16
Italy	91	0	3	1	589	1	(s)	720	26
Ivory Coast	0	0	7	0	0	0	0	7	(s)
Jamaica	0	(s)	7	(s)	0	0	(s)	309	11
Japan	98	1	41	5	1,678	2	1	2,472	88
Korea, Republic of	134	(s)	21	1	128	0	1	425	15
Kuwait	0	0	(s)	0	0	0	0	(s)	(s)
Lebanon	0	0	(s)	0	0	0	0	(s)	(s)
Liberia	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Malaysia	0	0	2	1	0	0	0	3	(s)
Mexico	(s)	7	69	21	54	4	1	2,850	102
Netherlands	34	203	8	1	1,396	1	3	1,890	67
Netherlands Antilles	0	0	2	0	0	0	(s)	172	6
New Zealand	0	0	2	1	0	0	0	5	(s)
Nigeria	0	0	(s)	0	0	0	0	(s)	(s)
Norway	0	0	3	0	201	0	0	203	7
Panama	0	0	2	0	0	0	(s)	556	20
Peru	0	0	25	0	0	0	(s)	25	1
Philippines	0	0	2	(s)	0	0	(s)	2	(s)
Puerto Rico	0	(s)	22	1	0	0	1	541	19
Saudi Arabia	0	1	11	(s)	(s)	0	0	12	(s)
Singapore	(s)	(s)	2	(s)	1	1	(s)	151	5
South Africa	0	0	1	0	0	(s)	0	1	(s)
Spain	0	(s)	1	(s)	622	1	(s)	626	22
Suriname	0	(s)	(s)	0	0	0	0	1	(s)
Sweden	0	0	1	(s)	0	0	(s)	2	(s)
Switzerland	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Thailand	0	(s)	1	(s)	0	0	(s)	2	(s)
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	(s)	(s)	0	0	0	0	(s)	(s)
United Arab Emirates	0	0	(s)	0	80	0	0	81	3
United Kingdom	0	1	2	(s)	4	1	(s)	9	(s)
U.S.S.R.	0	0	0	0	76	0	4	80	3
Uruguay	0	0	(s)	(s)	0	0	0	(s)	(s)
Venezuela	0	0	7	(s)	104	0	(s)	111	4
Virgin Islands	0	0	0	0	0	0	0	5,015	179
Other	0	(s)	16	(s)	41	10	(s)	112	4
Total	**427**	**227**	**508**	**46**	**6,320**	**41**	**26**	**24,494**	**875**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-February 1989
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	(s)	0	0
Australia	0	9	2	0	0	0	398	0	15
Bahama Islands	0	0	25	115	33	0	846	395	0
Bahrain	0	(s)	0	0	0	0	0	0	0
Belgium & Luxembourg	0	18	65	(s)	0	0	4	0	6
Brazil	0	0	0	0	0	0	(s)	0	0
Cameroon	0	0	0	0	0	0	0	0	0
Canada	904	39	130	130	322	5	1,417	1,264	5
Chile	0	0	(s)	0	0	0	(s)	0	2
China, Taiwan	0	3	(s)	0	0	0	1,127	2,067	1
Colombia	0	0	1	0	0	0	0	0	0
Costa Rica	0	(s)	(s)	11	0	0	138	0	(s)
Denmark	0	0	(s)	0	0	0	0	0	0
Dominican Republic	0	0	(s)	0	0	0	(s)	0	0
Ecuador	0	0	0	0	0	0	0	0	2
Egypt	0	14	0	0	0	0	0	0	0
El Salvador	0	0	0	37	0	0	45	0	0
Finland	0	3	0	0	0	0	0	0	0
France	0	0	1	0	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	64	0
Germany, FR (W)	0	1	9	(s)	0	0	0	0	(s)
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	1	0	0
Guatemala	0	0	121	270	0	27	293	0	3
Honduras	0	0	0	0	0	0	0	0	3
Hong Kong	0	0	(s)	0	0	0	1	0	0
India	0	0	0	0	0	0	0	0	1
Indonesia	0	(s)	0	0	0	0	(s)	0	0
Israel	0	0	0	0	224	0	(s)	231	0
Italy	0	0	109	0	0	0	0	312	(s)
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	125	0	(s)	110	375	0
Japan	0	1	8	324	2,307	0	1,707	739	30
Korea, Republic of	0	0	103	0	0	0	215	125	23
Kuwait	0	0	0	0	0	0	(s)	0	0
Lebanon	0	1	(s)	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	(s)	0	0
Malaysia	0	0	0	0	0	0	0	0	(s)
Mexico	0	358	852	523	(s)	2	496	2,736	6
Netherlands	0	0	1	(s)	0	0	(s)	213	35
Netherlands Antilles	0	0	0	45	0	0	172	0	0
New Zealand	0	6	0	0	0	0	(s)	0	1
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	25	0	530	50	0
Peru	0	0	(s)	0	0	0	213	0	0
Philippines	0	0	(s)	0	0	0	0	0	0
Puerto Rico	781	37	20	66	(s)	2	5	3	19
Saudi Arabia	0	6	(s)	0	0	0	0	0	0
Singapore	0	(s)	0	0	0	0	256	208	2
South Africa	0	0	(s)	0	0	0	0	0	0
Spain	0	(s)	(s)	0	0	0	0	0	1
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	(s)	0	0
Switzerland	0	(s)	(s)	0	0	0	0	0	0
Thailand	0	(s)	0	0	0	0	0	0	1
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	3	1	1	0	0	1	0	(s)
U.S.S.R.	0	0	0	0	0	0	0	0	(s)
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	5
Virgin Islands	8,374	0	0	8	0	0	(s)	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	8	1	35	0	1	15	0	(s)
Total	10,059	508	1,450	1,688	2,911	36	7,991	8,783	162

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-February 1989 (Continued)

(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	8	(s)	0	0	(s)	9	(s)
Australia	0	0	10	1	369	1	(s)	807	14
Bahama Islands	0	0	6	(s)	0	1	0	1,422	24
Bahrain	0	0	(s)	0	29	0	(s)	29	(s)
Belgium & Luxembourg	0	(s)	33	1	1,163	1	(s)	1,291	22
Brazil	0	(s)	1	(s)	55	0	0	56	1
Cameroon	0	0	0	0	38	0	0	38	1
Canada	8	18	149	6	576	8	14	4,993	85
Chile	0	0	40	1	3	0	(s)	46	1
China, Taiwan	0	(s)	50	1	27	(s)	8	3,283	56
Colombia	0	0	9	1	0	0	1	12	(s)
Costa Rica	0	4	12	(s)	0	0	(s)	166	3
Denmark	0	(s)	(s)	(s)	278	(s)	0	279	5
Dominican Republic	0	(s)	4	(s)	0	(s)	(s)	5	(s)
Ecuador	0	(s)	2	(s)	0	(s)	(s)	4	(s)
Egypt	0	0	(s)	0	0	(s)	(s)	14	(s)
El Salvador	0	(s)	2	0	(s)	0	(s)	85	1
Finland	0	0	1	0	0	0	0	4	(s)
France	196	0	2	25	(s)	4	(s)	229	4
French Pacific Islands	0	0	1	0	0	0	(s)	65	1
Germany, FR (W)	0	(s)	7	1	89	10	2	119	2
Ghana	0	0	1	0	44	(s)	0	45	1
Greece	0	0	22	0	0	0	(s)	23	(s)
Guatemala	0	2	16	(s)	(s)	(s)	(s)	731	12
Honduras	0	1	1	(s)	0	0	(s)	6	(s)
Hong Kong	0	(s)	1	1	(s)	0	(s)	3	(s)
India	0	0	41	1	0	0	2	45	1
Indonesia	0	0	2	(s)	105	(s)	(s)	108	2
Israel	0	0	3	(s)	0	0	(s)	458	8
Italy	282	0	4	1	1,624	1	(s)	2,334	40
Ivory Coast	0	0	7	0	0	(s)	0	7	(s)
Jamaica	0	(s)	8	(s)	0	0	(s)	619	10
Japan	98	34	75	7	2,792	3	2	8,127	138
Korea, Republic of	219	(s)	24	1	177	(s)	3	890	15
Kuwait	0	(s)	1	0	0	0	(s)	1	(s)
Lebanon	0	0	(s)	0	0	0	0	2	(s)
Liberia	0	0	(s)	(s)	0	0	(s)	1	(s)
Malaysia	0	1	3	2	0	0	(s)	7	(s)
Mexico	(s)	9	145	39	123	5	4	5,297	90
Netherlands	137	380	25	2	2,063	1	14	2,871	49
Netherlands Antilles	0	0	2	0	0	0	(s)	219	4
New Zealand	0	0	2	1	110	0	(s)	121	2
Nigeria	0	0	2	0	0	0	1	3	(s)
Norway	0	0	3	0	245	0	(s)	248	4
Panama	0	2	31	0	0	1	(s)	638	11
Peru	0	(s)	26	(s)	0	0	(s)	240	4
Philippines	0	0	11	(s)	0	0	(s)	11	(s)
Puerto Rico	0	1	32	2	0	0	2	969	16
Saudi Arabia	0	1	14	(s)	(s)	0	(s)	22	(s)
Singapore	(s)	(s)	6	(s)	1	1	(s)	474	8
South Africa	0	(s)	1	(s)	38	(s)	(s)	40	1
Spain	0	(s)	9	(s)	1,239	1	(s)	1,250	21
Suriname	0	(s)	1	0	0	0	0	1	(s)
Sweden	0	0	2	(s)	0	(s)	(s)	3	(s)
Switzerland	0	5	(s)	(s)	0	0	(s)	6	(s)
Thailand	87	(s)	4	(s)	0	(s)	(s)	92	2
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	(s)	4	(s)	0	0	0	4	(s)
United Arab Emirates	0	0	1	0	141	0	(s)	141	2
United Kingdom	0	1	4	1	172	1	(s)	184	3
U.S.S.R.	0	0	0	0	76	0	4	80	1
Uruguay	0	0	1	(s)	0	0	0	1	(s)
Venezuela	0	0	18	2	232	(s)	(s)	258	4
Virgin Islands	0	(s)	(s)	0	0	0	0	8,382	142
Yugoslavia	0	0	(s)	0	0	0	0	(s)	(s)
Other	0	1	30	(s)	41	11	1	141	2
Total	**1,027**	**462**	**919**	**99**	**11,851**	**52**	**63**	**48,061**	**815**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, February 1989

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,765**	**40**	**16**	**5**	**0**	**109**	**-3**	**(s)**	**191**	**358**	**2,123**
Algeria	62	40	8	0	0	109	0	0	91	248	310
Iraq	430	0	0	0	0	0	0	(s)	0	(s)	430
Kuwait	79	0	0	0	0	0	0	(s)	0	(s)	79
Saudi Arabia	1,177	(s)	8	5	0	0	(s)	(s)	100	113	1,290
United Arab Emirates	17	0	0	0	0	0	-3	(s)	0	-3	14
Other OPEC	**1,225**	**25**	**43**	**24**	**89**	**199**	**-7**	**(s)**	**81**	**453**	**1,678**
Ecuador	67	0	0	0	0	6	0	(s)	(s)	6	73
Gabon	11	0	0	0	0	0	0	0	0	0	11
Indonesia	244	0	0	0	0	45	-4	(s)	4	45	288
Nigeria	535	0	0	0	0	7	0	(s)	0	7	542
Venezuela	368	25	43	24	89	141	-4	(s)	77	395	763
Non OPEC	**2,064**	**173**	**309**	**69**	**69**	**408**	**-214**	**-4**	**358**	**1,169**	**3,233**
Angola	237	0	0	0	0	11	0	0	0	11	249
Argentina	0	(s)	0	0	4	24	0	(s)	1	29	29
Australia	27	(s)	0	0	-14	5	-7	(s)	-1	-17	10
Bahama Islands	0	-1	-2	0	-6	14	0	(s)	(s)	5	5
Belgium & Luxembourg	0	0	(s)	0	0	0	-23	(s)	32	8	8
Brazil	0	2	51	0	31	44	-2	(s)	(s)	125	125
Cameroon	19	0	0	0	0	13	-1	0	0	12	30
Canada	606	165	47	2	25	15	-7	-1	43	289	895
China, People's Republic of	26	0	6	0	0	0	0	(s)	0	6	32
China, Taiwan	0	0	0	0	-36	-46	-1	-1	(s)	-84	-84
Colombia	105	(s)	0	0	0	41	0	(s)	(s)	41	146
Congo	0	0	0	0	0	6	0	0	0	6	6
Egypt	7	0	0	0	0	0	0	(s)	9	9	16
Finland	0	0	0	0	0	0	0	(s)	0	(s)	(s)
France	0	5	9	0	0	0	(s)	(s)	3	17	17
Greece	0	0	0	1	0	22	0	(s)	9	32	32
Guatemala	0	-3	0	0	(s)	0	0	(s)	(s)	-4	-4
India	0	0	0	0	0	0	0	-1	35	34	34
Italy	12	-1	38	0	0	13	-21	(s)	1	30	42
Jamaica	0	0	-3	0	-1	-7	0	(s)	(s)	-11	-11
Japan	0	(s)	-5	-8	-10	0	-59	-1	-3	-86	-86
Korea, Republic of	0	(s)	0	1	-1	-4	-5	-1	-4	-13	-13
Malaysia	10	0	0	0	0	0	0	(s)	(s)	(s)	9
Mexico	706	3	-7	20	-18	-47	-2	-2	1	-52	654
Netherlands	0	(s)	88	0	(s)	4	-50	(s)	4	47	47
Netherlands Antilles	0	0	6	0	-4	13	0	(s)	24	38	38
Norway	222	0	0	0	0	11	-7	(s)	0	4	226
Oman	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Panama	0	0	0	-1	-19	0	0	(s)	(s)	-20	-20
Peru	0	0	0	0	0	43	0	-1	(s)	42	42
Puerto Rico	-14	(s)	-2	(s)	(s)	(s)	0	10	12	19	5
Romania	0	0	0	0	0	0	0	0	45	45	45
Singapore	0	0	0	0	-5	30	(s)	(s)	(s)	25	25
Spain	0	0	18	26	0	7	-22	(s)	19	47	47
Syria	0	0	0	0	0	0	0	0	6	6	6
Thailand	16	0	0	0	0	0	0	(s)	(s)	(s)	16
Trinidad and Tobago	85	0	0	0	8	0	0	(s)	(s)	7	92
United Kingdom	130	5	31	0	20	29	(s)	(s)	6	91	220
U.S.S.R.	0	0	0	0	12	0	-3	0	(s)	9	9
Virgin Islands	-179	0	20	37	84	146	0	0	81	368	189
Zaire	32	0	0	0	0	0	0	0	(s)	(s)	32
Other	18	(s)	15	-8	1	20	-5	-3	36	56	73
Total	**5,054**	**238**	**368**	**98**	**158**	**717**	**-225**	**-5**	**630**	**1,980**	**7,034**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-February 1989
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,816**	**31**	**31**	**7**	**11**	**83**	**-2**	**(s)**	**187**	346	2,162
Algeria	79	31	4	0	4	83	0	0	113	234	313
Iraq	385	0	0	0	0	0	0	(s)	(s)	(s)	385
Kuwait	54	0	0	0	(s)	0	0	(s)	(s)	(s)	54
Saudi Arabia	1,260	(s)	27	7	7	0	(s)	(s)	74	114	1,374
United Arab Emirates	39	0	0	0	0	0	-2	(s)	(s)	-2	37
Other OPEC	**1,347**	**19**	**43**	**26**	**98**	**178**	**-6**	**(s)**	**101**	459	1,805
Ecuador	56	0	0	0	0	6	0	(s)	(s)	6	62
Gabon	5	0	0	0	0	0	0	0	0	0	5
Indonesia	218	0	0	0	(s)	30	-2	(s)	2	30	248
Nigeria	646	0	0	0	0	3	0	(s)	(s)	3	649
Venezuela	422	19	43	26	98	138	-4	(s)	100	419	841
Non OPEC	**2,065**	**174**	**268**	**19**	**83**	**460**	**-191**	**-2**	**320**	1,131	3,196
Angola	178	0	0	0	0	5	0	0	0	5	184
Argentina	0	(s)	4	0	5	21	0	(s)	2	31	31
Australia	23	(s)	0	0	-7	2	-6	(s)	(s)	-11	12
Bahama Islands	0	(s)	-2	-1	-14	33	0	(s)	(s)	16	16
Belgium & Luxembourg	0	-1	(s)	0	(s)	0	-20	-1	20	-2	-2
Brazil	0	1	47	0	25	36	-1	(s)	(s)	108	108
Cameroon	9	0	0	0	0	12	-1	0	0	11	20
Canada	612	169	42	2	50	8	-10	(s)	35	296	908
China, People's Republic of	33	0	3	0	(s)	0	0	(s)	0	3	35
China, Taiwan	0	(s)	0	0	-19	-35	(s)	-1	(s)	-56	-56
Colombia	157	(s)	0	0	3	47	0	(s)	(s)	49	207
Congo	0	0	0	0	0	6	0	(s)	0	6	6
Egypt	3	0	0	0	0	0	0	(s)	4	4	7
Finland	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
France	0	5	24	0	0	4	(s)	(s)	-1	31	31
Greece	0	0	0	1	(s)	12	0	(s)	4	16	16
Guatemala	0	-2	-5	0	-5	0	(s)	(s)	-1	-12	-12
India	0	0	0	0	0	0	0	-1	40	39	39
Italy	5	-2	23	0	0	1	-28	(s)	2	-3	2
Jamaica	0	0	-2	0	-2	-6	0	(s)	(s)	-10	-10
Japan	0	(s)	-5	-39	-29	-13	-46	-1	-2	-136	-136
Korea, Republic of	0	-2	0	(s)	-4	-2	-3	(s)	-4	-14	-14
Malaysia	41	0	0	0	0	0	0	(s)	(s)	(s)	41
Mexico	728	(s)	-9	20	-8	-32	-2	-2	-1	-35	693
Netherlands	0	(s)	60	0	(s)	7	-35	(s)	7	40	40
Netherlands Antilles	0	0	3	0	(s)	34	0	(s)	11	49	49
Norway	123	0	0	0	0	5	-4	(s)	(s)	1	124
Oman	5	0	0	0	0	0	0	(s)	0	(s)	5
Panama	0	0	0	(s)	-9	2	0	-1	(s)	-8	-8
Peru	0	(s)	0	0	-4	46	0	(s)	3	45	45
Puerto Rico	-13	(s)	-1	(s)	(s)	(s)	0	9	16	24	11
Romania	0	0	0	0	0	5	0	0	22	27	27
Singapore	0	0	0	0	-4	21	(s)	(s)	4	21	21
Spain	0	(s)	34	12	3	3	-21	(s)	33	65	65
Syria	0	0	0	0	0	0	0	0	3	3	3
Thailand	20	0	0	0	0	0	0	(s)	-1	-2	19
Trinidad and Tobago	82	0	0	0	5	0	0	(s)	2	7	89
United Kingdom	134	4	29	0	10	33	-3	(s)	3	76	210
U.S.S.R.	0	0	0	0	10	0	-1	0	6	14	14
Virgin Islands	-142	0	18	27	77	175	0	(s)	95	392	250
Zaire	23	0	0	0	0	2	0	0	(s)	2	25
Other	43	3	6	-4	(s)	27	-11	-2	17	37	80
Total	**5,228**	**224**	**341**	**52**	**191**	**721**	**-199**	**-3**	**608**	**1,935**	**7,163**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, February 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	**13,224**	**68,892**	**720,560**	**12,459**	**81,451**	**896,586**
Refinery	11,851	11,608	50,144	1,991	24,709	100,303
Tank Farms and Pipelines	1,331	55,680	89,639	9,296	34,531	190,477
Leases	42	1,604	16,889	1,172	1,498	21,205
Strategic Petroleum Reserve[a]	0	0	563,888	0	0	563,888
Alaskan In Transit	0	0	0	0	20,713	20,713
Total Stocks, All Oils (excluding Crude Oil)	**166,892**	**167,590**	**259,479**	**19,105**	**91,922**	**704,988**
Refinery	45,787	63,163	149,817	13,245	64,129	336,141
Bulk Terminal	95,181	65,528	64,002	3,053	22,242	250,006
Pipeline	25,717	36,628	41,807	2,617	5,481	112,250
Natural Gas Processing Plant	207	2,271	3,853	190	70	6,591
Pentanes Plus	**60**	**2,033**	**3,734**	**146**	**53**	**6,026**
Refinery	16	273	574	4	31	898
Bulk Terminal	35	704	1,314	0	4	2,057
Pipeline	0	653	874	75	0	1,602
Natural Gas Processing Plant	9	403	972	67	18	1,469
Liquefied Petroleum Gases	**3,740**	**20,115**	**51,167**	**889**	**1,624**	**77,535**
Refinery	1,133	2,565	7,724	266	661	12,349
Bulk Terminal	1,493	8,982	33,746	59	911	45,191
Pipeline	916	6,700	6,816	441	0	14,873
Natural Gas Processing Plant	198	1,868	2,881	123	52	5,122
Ethane/Ethylene	**24**	**3,520**	**13,826**	**150**	**0**	**17,520**
Refinery	22	1	793	0	0	816
Bulk Terminal	2	1,687	9,996	0	0	11,685
Pipeline	0	1,427	2,481	147	0	4,055
Natural Gas Processing Plant	0	405	556	3	0	964
Propane/Propylene	**2,928**	**10,718**	**22,258**	**361**	**238**	**36,503**
Refinery	887	997	3,281	48	86	5,299
Bulk Terminal	1,096	4,677	15,047	59	118	20,997
Pipeline	814	4,032	2,827	168	0	7,841
Natural Gas Processing Plant	131	1,012	1,103	86	34	2,366
Normal Butane/Butylene	**737**	**4,012**	**9,671**	**238**	**1,027**	**15,685**
Refinery	182	1,216	2,346	129	389	4,262
Bulk Terminal	392	1,704	5,626	0	626	8,348
Pipeline	102	767	874	82	0	1,825
Natural Gas Processing Plant	61	325	825	27	12	1,250
Isobutane	**51**	**1,865**	**5,412**	**140**	**359**	**7,827**
Refinery	42	351	1,304	89	186	1,972
Bulk Terminal	3	914	3,077	0	167	4,161
Pipeline	0	474	634	44	0	1,152
Natural Gas Processing Plant	6	126	397	7	6	542
Other Hydrocarbons/Alcohol	**0**	**125**	**244**	**28**	**23**	**420**
Refinery	0	125	244	28	23	420
Unfinished Oils	**12,283**	**13,651**	**51,686**	**2,296**	**24,787**	**104,703**
Refinery						
Naphthas and Lighter	3,604	3,446	15,036	506	4,885	27,477
Kerosene and Light Gas Oils	2,770	1,838	9,741	432	2,921	17,702
Heavy Gas Oils	4,902	4,568	16,544	1,055	12,402	39,471
Residuum	1,007	3,799	10,365	303	4,579	20,053
Motor Gasoline Blending Components	**5,347**	**8,894**	**18,525**	**2,411**	**8,352**	**43,529**
Refinery	5,283	8,390	17,162	2,394	8,271	41,500
Bulk Terminal	64	385	1,363	17	7	1,836
Pipeline	0	119	0	0	74	193

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, February 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	**0**	**72**	**85**	**0**	**10**	**167**
Refinery	0	72	85	0	10	167
Finished Motor Gasoline	**62,051**	**59,818**	**53,052**	**5,549**	**23,098**	**203,568**
Refinery	11,221	12,387	22,439	2,303	9,623	57,973
Bulk Terminal	36,752	30,127	10,905	1,887	10,918	90,589
Pipeline	14,078	17,304	19,708	1,359	2,557	55,006
Finished Leaded Motor Gasoline	**7,556**	**13,858**	**9,135**	**2,333**	**6,597**	**39,479**
Refinery	1,109	2,784	4,025	1,049	2,662	11,629
Bulk Terminal	5,199	7,063	2,709	818	3,548	19,337
Pipeline	1,248	4,011	2,401	466	387	8,513
Finished Unleaded Motor Gasoline	**54,495**	**45,960**	**43,917**	**3,216**	**16,501**	**164,089**
Refinery	10,112	9,603	18,414	1,254	6,961	46,344
Bulk Terminal	31,553	23,064	8,196	1,069	7,370	71,252
Pipeline	12,830	13,293	17,307	893	2,170	46,493
Finished Aviation Gasoline	**337**	**520**	**758**	**44**	**494**	**2,153**
Refinery	32	185	572	27	221	1,037
Bulk Terminal	305	262	92	17	273	949
Pipeline	0	73	94	0	0	167
Naphtha-Type Jet Fuel	**1,034**	**910**	**2,446**	**394**	**1,595**	**6,379**
Refinery	332	499	1,765	250	706	3,552
Bulk Terminal	539	255	168	1	467	1,430
Pipeline	163	156	513	143	422	1,397
Kerosene-Type Jet Fuel	**10,003**	**7,748**	**13,959**	**582**	**5,076**	**37,368**
Refinery	2,014	1,981	6,366	271	2,535	13,167
Bulk Terminal	4,179	2,576	2,172	145	1,736	10,808
Pipeline	3,810	3,191	5,421	166	805	13,393
Kerosene	**2,563**	**1,605**	**1,529**	**43**	**131**	**5,871**
Refinery	213	711	951	9	91	1,975
Bulk Terminal	2,082	734	272	34	19	3,141
Pipeline	268	160	306	0	21	755
Distillate Fuel Oil	**37,223**	**31,194**	**26,206**	**2,659**	**10,267**	**107,549**
Refinery	5,013	8,423	13,498	1,395	5,176	33,505
Bulk Terminal	25,728	14,536	4,905	831	4,055	50,055
Pipeline	6,482	8,235	7,803	433	1,036	23,989
Residual Fuel Oil[b]	**19,158**	**3,272**	**13,311**	**646**	**9,595**	**45,982**
Refinery	2,502	2,326	6,835	646	6,431	18,740
Bulk Terminal	16,656	946	6,464	0	2,786	26,852
Pipeline	0	0	12	0	378	390
Less than 0.31% Sulfur	**6,204**	**257**	**961**	**59**	**732**	**8,213**
Refinery	546	30	957	59	681	2,273
Bulk Terminal	5,658	227	4	0	51	5,940
0.31 to 1.00% Sulfur	**5,836**	**771**	**3,827**	**297**	**998**	**11,729**
Refinery	1,133	506	742	297	818	3,496
Bulk Terminal	4,703	265	3,085	0	180	8,233
Greater than 1.00% Sulfur	**7,118**	**2,244**	**8,511**	**290**	**7,487**	**25,650**
Refinery	823	1,790	5,136	290	4,932	12,971
Bulk Terminal	6,295	454	3,375	0	2,555	12,679
Naphtha for Petrochemical Feedstock Use	**314**	**308**	**1,259**	**52**	**184**	**2,117**
Refinery	314	308	1,259	52	184	2,117

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, February 1989 (Continued)

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	**3**	**8**	**2,141**	**2**	**102**	**2,256**
Refinery	3	8	2,141	2	102	2,256
Special Naphthas	**990**	**650**	**1,478**	**4**	**148**	**3,270**
Refinery	422	278	1,423	4	134	2,261
Bulk Terminal	568	372	55	0	14	1,009
Lubricants	**3,484**	**2,218**	**6,910**	**103**	**1,783**	**14,498**
Refinery	1,160	1,393	6,065	103	999	9,720
Bulk Terminal	2,324	825	845	0	784	4,778
Waxes	**70**	**128**	**501**	**83**	**111**	**893**
Refinery	70	128	501	83	111	893
Petroleum Coke	**1,129**	**1,982**	**3,478**	**10**	**1,744**	**8,343**
Refinery	1,129	1,982	3,478	10	1,744	8,343
Asphalt and Road Oil	**6,337**	**11,964**	**5,265**	**3,116**	**2,403**	**29,085**
Refinery	2,415	7,239	4,379	3,055	2,168	19,256
Bulk Terminal	3,922	4,725	886	61	235	9,829
Miscellaneous Products	**766**	**375**	**1,745**	**48**	**342**	**3,276**
Refinery	232	239	670	47	121	1,309
Bulk Terminal	534	99	815	1	33	1,482
Pipeline	0	37	260	0	188	485
Total Stocks, All Oils	**180,116**	**236,482**	**980,039**	**31,564**	**173,373**	**1,601,574**

[a] Includes 38,395 thousand barrels of domestic crude oil.

[b] Sulfur content not available for stocks held by pipelines.

Note: Stocks are reported as of the last day of the month.

Sources: See Explanatory Notes.

Table 42. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, February 1989
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I	**6,308**	**41,665**	**2,295**	**30,741**	**19,158**
Connecticut	477	1,356	257	1,263	164
Delaware, D.C., Maryland	273	2,405	142	2,795	1,589
Florida	728	4,728	136	1,400	928
Georgia	771	2,294	108	952	300
Maine, New Hampshire, Vermont	50	1,026	86	1,491	391
Massachusetts	90	2,231	69	2,186	1,310
New Jersey	694	9,303	118	6,036	7,782
New York	642	5,162	321	4,768	3,580
North Carolina	790	2,624	327	1,559	231
Pennsylvania	905	4,902	452	4,492	1,390
Rhode Island	27	711	W	735	W
South Carolina	375	1,399	136	782	W
Virginia	426	3,267	123	2,183	681
West Virginia	60	257	W	99	W
PAD District II	**9,847**	**32,667**	**1,445**	**22,959**	**3,272**
Illinois	1,702	6,825	258	4,807	1,197
Indiana	1,198	4,957	171	2,706	564
Iowa	561	1,267	W	1,310	W
Kansas, Nebraska	1,244	2,069	43	2,141	56
Kentucky	379	1,009	31	741	W
Michigan	659	3,943	150	2,180	244
Minnesota	697	2,164	W	1,306	181
Missouri	477	998	W	814	W
North Dakota, South Dakota	257	569	W	727	W
Ohio	807	3,881	435	2,541	283
Oklahoma	779	1,383	W	1,582	282
Tennessee	527	1,896	67	1,029	202
Wisconsin	560	1,706	W	1,075	31
PAD District III	**6,734**	**26,610**	**1,223**	**18,403**	**13,299**
Alabama	380	1,335	69	688	1,007
Arkansas	210	363	W	276	W
Louisiana	1,298	4,884	395	4,531	5,156
Mississippi	622	2,353	31	1,585	W
New Mexico	206	330	W	145	5
Texas	4,018	17,345	708	11,178	6,909
PAD District IV	**1,867**	**2,323**	**43**	**2,226**	**646**
Colorado	366	633	W	315	W
Idaho	199	285	W	256	W
Montana	722	559	W	709	83
Utah	176	385	W	408	134
Wyoming	404	461	W	538	W
PAD District V	**6,210**	**14,331**	**110**	**9,231**	**9,217**
Alaska	189	582	W	845	W
Arizona	237	338	W	272	W
California	3,442	9,684	64	5,238	5,849
Hawaii	154	593	W	466	W
Nevada	133	168	W	208	W
Oregon	671	811	W	881	261
Washington	1,384	2,155	W	1,321	1,003
U.S. Total	**30,966**	**117,596**	**5,116**	**83,560**	**45,592**

W = Withheld to avoid disclosure of individual company data.
Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, February 1989
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	6	0	0	98	2,270	498	0	395	46,044
Petroleum Products	6,101	261	0	3,626	4,856	1,835	0	73,849	19,277
Pentanes Plus	0	0	0	0	204	0	0	0	706
Liquefied Petroleum Gases	0	0	0	792	2,039	261	0	2,331	3,609
Unfinished Oils	0	0	0	0	0	0	0	194	129
Motor Gasoline Blending Components	38	109	0	166	0	0	0	78	71
Finished Motor Gasoline	3,896	0	0	1,749	1,263	738	0	37,290	8,743
Leaded	627	0	0	66	321	118	0	3,616	1,063
Unleaded	3,269	0	0	1,683	942	620	0	33,674	7,680
Finished Aviation Gasoline	0	0	0	0	0	13	0	80	61
Jet Fuel	373	0	0	185	102	673	0	10,730	3,195
Naphtha-Type Jet Fuel	0	0	0	0	64	0	0	468	63
Kerosene-Type Jet Fuel	373	0	0	185	38	673	0	10,262	3,132
Kerosene	89	0	0	87	82	0	0	671	10
Distillate Fuel Oil	1,603	0	0	492	231	150	0	19,998	2,296
Residual Fuel Oil	21	0	0	13	877	0	0	547	14
Petrochemical Feedstocks[a]	81	26	0	34	18	0	0	30	28
Special Naphthas	0	0	0	0	0	0	0	266	133
Lubricants	0	102	0	108	34	0	0	1,078	227
Waxes	0	0	0	0	0	0	0	15	0
Asphalt and Road Oil	0	0	0	0	0	0	0	383	55
Miscellaneous Products	0	24	0	0	6	0	0	158	0
Total	6,107	261	0	3,724	7,126	2,333	0	74,244	65,321

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	4,456	1,675	0	780	0	13,030	0
Petroleum Products	0	1,671	1,130	1,231	1,379	0	0	50	0
Pentanes Plus	0	0	68	111	0	0	0	0	0
Liquefied Petroleum Gases	0	0	411	1,120	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,062	391	0	914	0	0	0	0
Leaded	0	168	122	0	334	0	0	0	0
Unleaded	0	894	269	0	580	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	316	31	0	138	0	0	0	0
Naphtha-Type Jet Fuel	0	206	29	0	80	0	0	0	0
Kerosene-Type Jet Fuel	0	110	2	0	58	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	293	229	0	327	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	50	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	0	1,671	5,586	2,906	1,379	780	0	13,080	0

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, February 1989
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	**0**	**0**	**12**	**2,270**	**498**	**0**	**46,044**
Petroleum Products	**5,948**	**0**	**2,253**	**3,885**	**1,835**	**58,770**	**16,559**
Pentanes Plus	0	0	0	204	0	0	706
Liquefied Petroleum Gases	0	0	792	2,039	261	2,058	3,609
Motor Gasoline Blending Components	0	0	166	0	0	78	0
Finished Motor Gasoline	3,883	0	1,052	1,221	738	30,295	7,559
Leaded	627	0	35	321	118	2,938	911
Unleaded	3,256	0	1,017	900	620	27,357	6,648
Finished Aviation Gasoline	0	0	0	0	13	6	43
Jet Fuel	373	0	136	102	673	8,439	2,807
Naphtha-Type Jet Fuel	0	0	0	64	0	199	63
Kerosene-Type Jet Fuel	373	0	136	38	673	8,240	2,744
Kerosene	89	0	0	82	0	646	0
Distillate Fuel Oil	1,603	0	107	231	150	17,248	1,835
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	6	0	0	0
Total	**5,948**	**0**	**2,265**	**6,155**	**2,333**	**58,770**	**62,603**

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	**0**	**0**	**4,456**	**1,675**	**0**	**3,831**	**0**
Petroleum Products	**0**	**1,462**	**1,130**	**1,231**	**1,379**	**0**	**0**
Pentanes Plus	0	0	68	111	0	0	0
Liquefied Petroleum Gases	0	0	411	1,120	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	853	391	0	914	0	0
Leaded	0	168	122	0	334	0	0
Unleaded	0	685	269	0	580	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	316	31	0	138	0	0
Naphtha-Type Jet Fuel	0	206	29	0	80	0	0
Kerosene-Type Jet Fuel	0	110	2	0	58	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	293	229	0	327	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	**0**	**1,462**	**5,586**	**2,906**	**1,379**	**3,831**	**0**

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, February 1989

(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	6	0	0	86	0	0	395	0
Petroleum Products	153	261	0	1,373	971	0	15,079	728
Liquefied Petroleum Gases	0	0	0	0	0	0	273	0
Unfinished Oils	0	0	0	0	0	0	194	0
Motor Gasoline Blending Components	38	109	0	0	0	0	0	0
Finished Motor Gasoline	13	0	0	697	42	0	6,995	0
Leaded	0	0	0	31	0	0	678	0
Unleaded	13	0	0	666	42	0	6,317	0
Finished Aviation Gasoline	0	0	0	0	0	0	74	0
Jet Fuel	0	0	0	49	0	0	2,291	172
Naphtha-Type Jet Fuel	0	0	0	0	0	0	269	0
Kerosene-Type Jet Fuel	0	0	0	49	0	0	2,022	172
Kerosene	0	0	0	87	0	0	25	0
Distillate Fuel Oil	0	0	0	385	0	0	2,750	556
Residual Fuel Oil	21	0	0	13	877	0	547	0
Less than 0.31 percent sulfur	21	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	59	0	70	0
Greater than 1.00 percent sulfur	0	0	0	13	818	0	477	0
Petrochemical Feedstocks[a]	81	26	0	34	18	0	30	0
Special Naphthas	0	0	0	0	0	0	266	0
Lubricants	0	102	0	108	34	0	1,078	0
Waxes	0	0	0	0	0	0	15	0
Asphalt and Road Oil	0	0	0	0	0	0	383	0
Miscellaneous Products	0	24	0	0	0	0	158	0
Total	159	261	0	1,459	971	0	15,474	728

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	395	0	0	0	780	0	9,199
Petroleum Products	2,000	12,351	2,718	209	0	0	50
Liquefied Petroleum Gases	0	273	0	0	0	0	0
Unfinished Oils	43	151	129	0	0	0	0
Motor Gasoline Blending Components	0	0	71	0	0	0	0
Finished Motor Gasoline	0	6,995	1,184	209	0	0	0
Leaded	0	678	152	0	0	0	0
Unleaded	0	6,317	1,032	209	0	0	0
Finished Aviation Gasoline	23	51	18	0	0	0	0
Jet Fuel	226	1,893	388	0	0	0	0
Naphtha-Type Jet Fuel	0	269	0	0	0	0	0
Kerosene-Type Jet Fuel	226	1,624	388	0	0	0	0
Kerosene	25	0	10	0	0	0	0
Distillate Fuel Oil	608	1,586	461	0	0	0	0
Residual Fuel Oil	377	170	14	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	70	0	0	0	0	0
Greater than 1.00 percent sulfur	377	100	14	0	0	0	0
Petrochemical Feedstocks[a]	30	0	28	0	0	0	0
Special Naphthas	112	154	133	0	0	0	0
Lubricants	411	667	227	0	0	0	50
Waxes	5	10	0	0	0	0	0
Asphalt and Road Oil	0	383	55	0	0	0	0
Miscellaneous Products	140	18	0	0	0	0	0
Total	2,395	12,351	2,718	209	780	0	9,249

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, February 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**1,273**	**6**	**1,267**	**50,506**	**2,866**	**47,640**
Petroleum Products	**77,475**	**6,362**	**71,113**	**26,508**	**10,317**	**16,191**
Pentanes Plus	0	0	0	774	204	570
Liquefied Petroleum Gases	3,123	0	3,123	4,020	3,092	928
Ethane/Ethylene	0	0	0	353	1,155	-802
Propane/Propylene	3,027	0	3,027	2,780	1,590	1,190
Normal Butane/Butylene	74	0	74	565	203	362
Isobutane	22	0	22	322	144	178
Unfinished Oils	194	0	194	129	0	129
Motor Gasoline Blending Components	244	147	97	109	166	-57
Finished Motor Gasoline	39,039	3,896	35,143	13,030	3,750	9,280
Leaded	3,682	627	3,055	1,812	505	1,307
Unleaded	35,357	3,269	32,088	11,218	3,245	7,973
Finished Aviation Gasoline	80	0	80	61	13	48
Jet Fuel	10,915	373	10,542	3,599	960	2,639
Naphtha-Type Jet Fuel	468	0	468	92	64	28
Kerosene-Type Jet Fuel	10,447	373	10,074	3,507	896	2,611
Kerosene	758	89	669	99	169	-70
Distillate Fuel Oil	20,490	1,603	18,887	4,128	873	3,255
Residual Fuel Oil	560	21	539	35	890	-855
Petrochemical Feedstocks[a]	64	107	-43	109	52	57
Special Naphthas	266	0	266	133	0	133
Lubricants	1,186	102	1,084	227	142	85
Waxes	15	0	15	0	0	0
Asphalt and Road Oil	383	0	383	55	0	55
Miscellaneous Products	158	24	134	0	6	-6
Total	**78,748**	**6,368**	**72,380**	**77,014**	**13,183**	**63,831**

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**16,975**	**46,439**	**-29,464**	**498**	**6,131**	**-5,633**	**0**	**13,810**	**-13,810**
Petroleum Products	**6,398**	**94,797**	**-88,399**	**1,835**	**3,740**	**-1,905**	**3,050**	**50**	**3,000**
Pentanes Plus	315	706	-391	0	179	-179	0	0	0
Liquefied Petroleum Gases	3,159	5,940	-2,781	261	1,531	-1,270	0	0	0
Ethane/Ethylene	1,707	186	1,521	0	719	-719	0	0	0
Propane/Propylene	967	4,973	-4,006	259	470	-211	0	0	0
Normal Butane/Butylene	261	494	-233	2	205	-203	0	0	0
Isobutane	224	287	-63	0	137	-137	0	0	0
Unfinished Oils	0	323	-323	0	0	0	0	0	0
Motor Gasoline Blending Components	109	149	-40	0	0	0	0	0	0
Finished Motor Gasoline	1,263	47,095	-45,832	738	1,305	-567	1,976	0	1,976
Leaded	321	4,847	-4,526	118	456	-338	502	0	502
Unleaded	942	42,248	-41,306	620	849	-229	1,474	0	1,474
Finished Aviation Gasoline	0	141	-141	13	0	13	0	0	0
Jet Fuel	102	14,241	-14,139	673	169	504	454	0	454
Naphtha-Type Jet Fuel	64	737	-673	0	109	-109	286	0	286
Kerosene-Type Jet Fuel	38	13,504	-13,466	673	60	613	168	0	168
Kerosene	82	681	-599	0	0	0	0	0	0
Distillate Fuel Oil	231	22,587	-22,356	150	556	-406	620	0	620
Residual Fuel Oil	877	561	316	0	0	0	0	0	0
Petrochemical Feedstocks[a]	44	58	-14	0	0	0	0	0	0
Special Naphthas	0	399	-399	0	0	0	0	0	0
Lubricants	186	1,305	-1,119	0	0	0	0	50	-50
Waxes	0	15	-15	0	0	0	0	0	0
Asphalt and Road Oil	0	438	-438	0	0	0	0	0	0
Miscellaneous Products	30	158	-128	0	0	0	0	0	0
Total	**23,373**	**141,236**	**-117,863**	**2,333**	**9,871**	**-7,538**	**3,050**	**13,860**	**-10,810**

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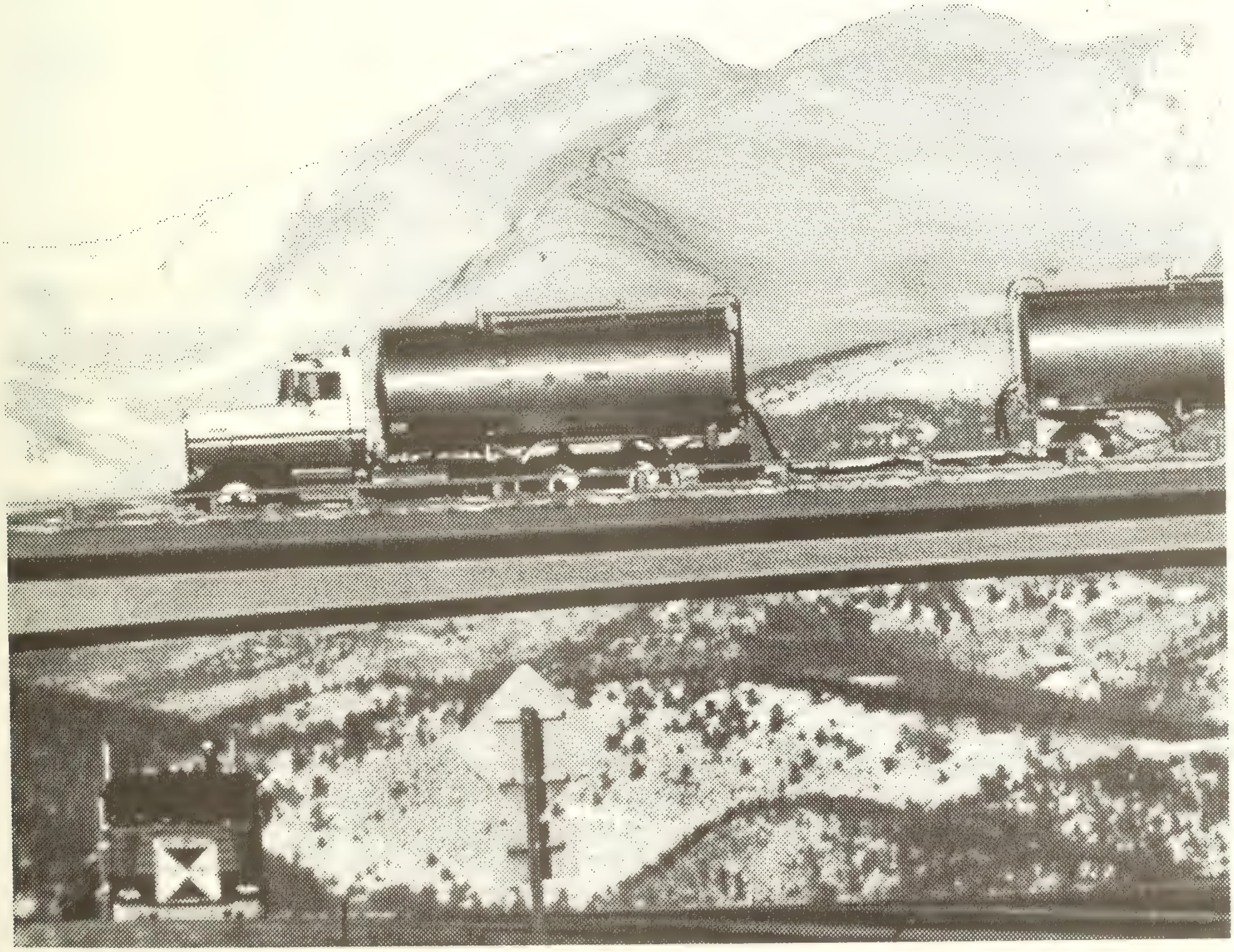
[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

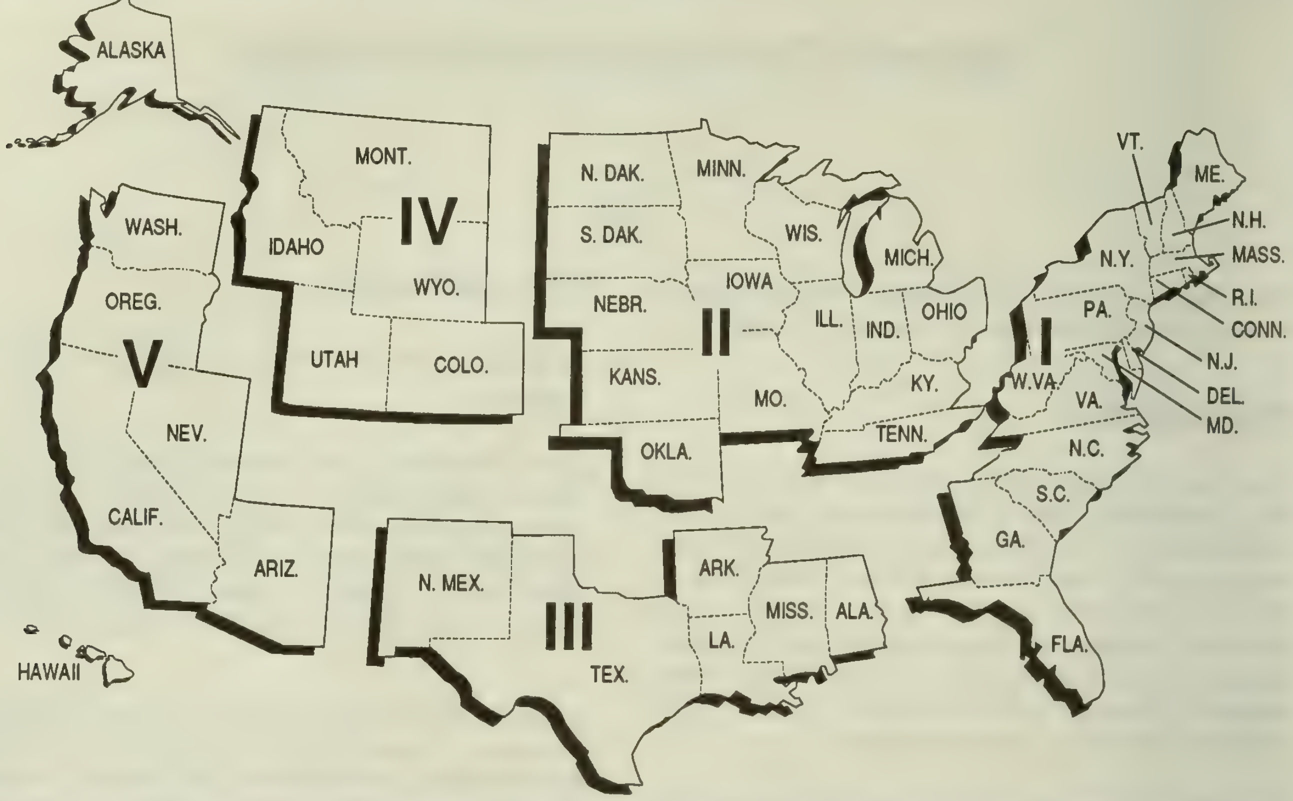
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

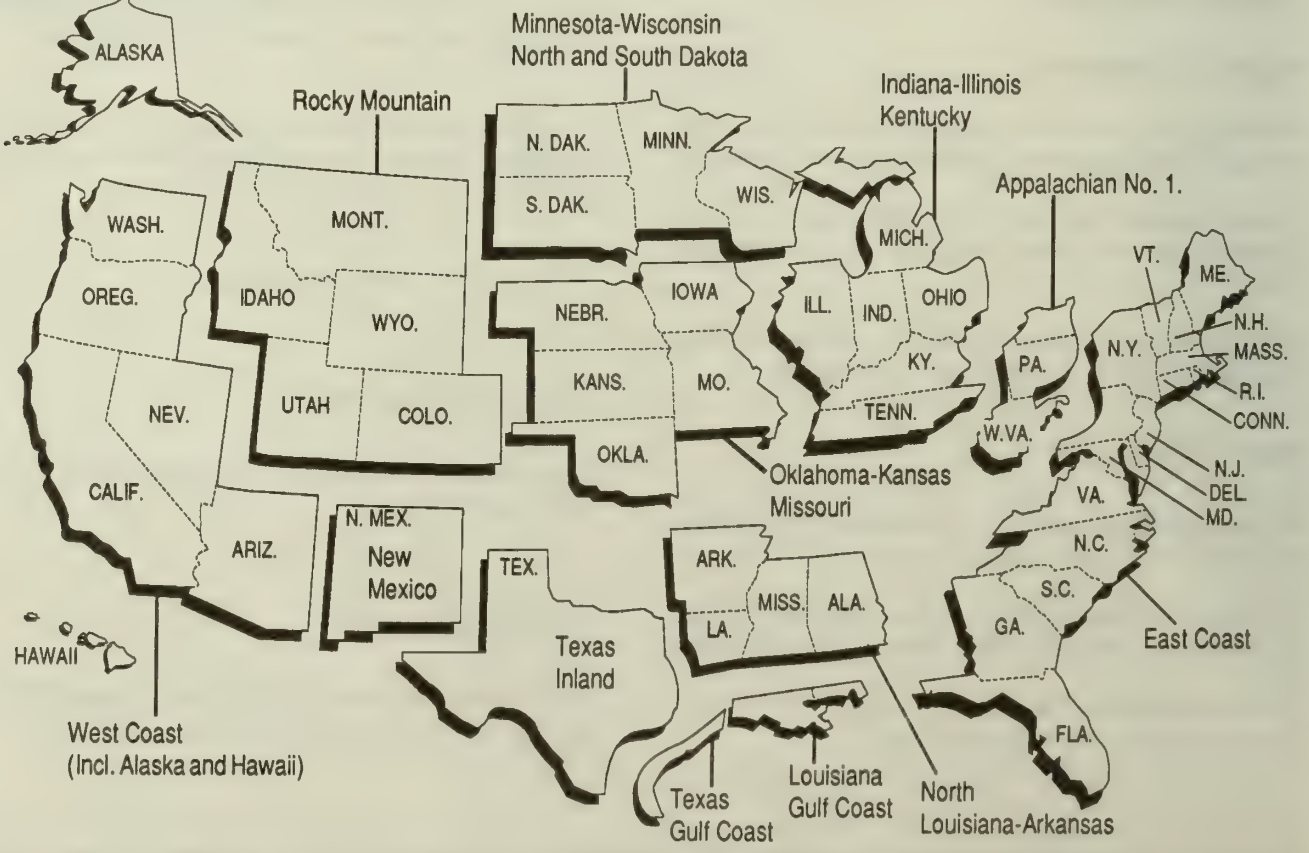
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

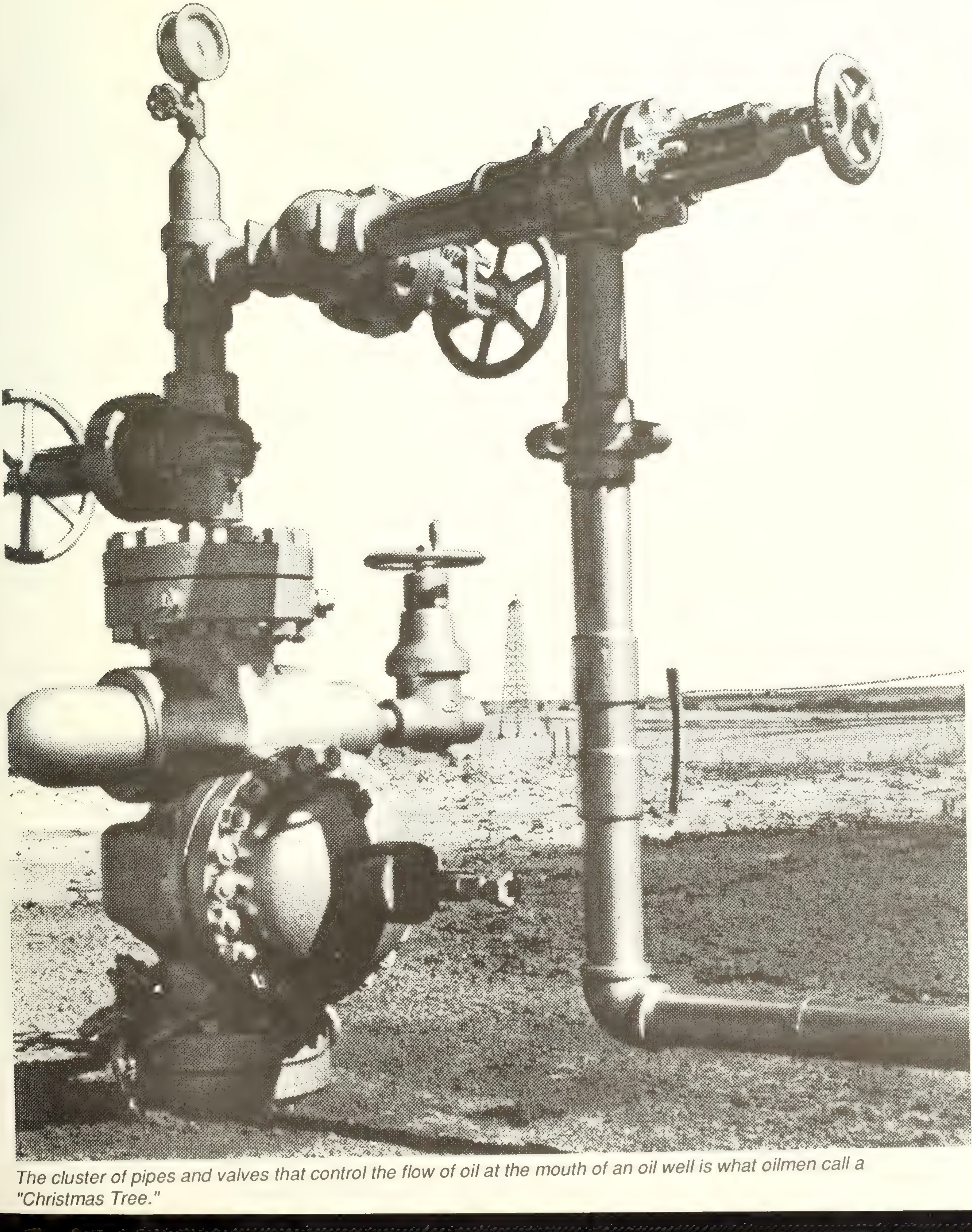


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Appendix B

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Preliminary Monthly Statistics Derivation
- Note 3. Summary Statistics Table Sources
- Note 4. Summary Statistics Figure Sources
- Note 5. Monthly Petroleum Supply Reporting System
- Note 6. Detailed Statistics Table Sources
- Note 7. Domestic Crude Oil Production
- Note 8. Export Data Source
- Note 9. Quality Control and Data Revision
- Note 10. Frames Maintenance
- Note 11. 1981 Changes in the Petroleum Supply Reporting System
- Note 12. 1984 Changes in the Petroleum Supply Reporting System
- Note 13. 1985 Changes in the Petroleum Supply Reporting System
- Note 14. 1986 Changes in the Petroleum Supply Reporting System
- Note 15. 1987 Changes in the Petroleum Supply Reporting System
- Note 16. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and monthly system -- the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e., stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figures, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 3. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics, is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). See Explanatory Note 2. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables:

- **Table S1. Crude Oil and Petroleum Products Overview**

  The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

  Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

  Crude Oil Field Production is estimated according to procedures described in Explanatory Note 7, Domestic Crude Oil Production.

  Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

  Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

  Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

  Except where otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 7, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

  Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks.

Ending Stocks are from DS Table 2 rounded to million barrels. Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 4. Summary Statistics Figure Sources

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases in this publication include features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 5. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of

50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, instrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report.*

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands, and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of processing facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and stocks located at fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Survey forms can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed.

Note 6. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current month. The tables are organized to locate National and PAD District summary data for the current month at the front. These tables are followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The sources of data for each table are described below:

Column and row headings are defined in the Glossary. The table, form or other source for items of each table, are explained below.

- **Table 1** -- Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).
  - Lines (1) through (3): Crude Oil Field Production for Alaska, Lower 48 States, and Total United States are calculated according to Explanatory Note 7.
  - Line (4): Crude Oil Imports excluding Strategic Petroleum Reserve (SPR) reported on Form EIA-814.
  - Line (5): SPR Imports are reported on Form EIA-814.
  - Line (6): Exports of crude oil taken from Census tapes and data reported on Form EIA-810 for U.S. territories.
  - Line (7): Sum of lines (4) through (6).
  - Line (8): The difference between the previous month and current month ending stocks held in the SPR.
  - Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
  - Line (10): The sum of Crude Oil Products Supplied and Crude Losses as shown in Table 2.
  - Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
  - Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
  - Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
  - Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
  - Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes

plus as shown in Table 2.

- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.

- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).

- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (19): The sum of unfinished oils and motor and aviation gasoline blending components imports reported on Form EIA-814.

- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.

- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.

- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.

- Line (23): Total Other Liquids equals the sum of lines (18) through (22).

- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).

- Line (25): Gross Imports of Refined Products equals imports of LPG plus imports of finished petroleum products as shown in Table 2.

- Line (26): Exports of Refined Products equals exports of LPG plus exports of finished petroleum products as shown in Table 2.

- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).

- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).

- Line (29): Refined Products Stock Change equals the sum of stock change for LPG and finished petroleum products in Table 2.

- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.

- Lines (31) through (34): Equal the respective products supplied of same in Table 2.

- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha equal to or less than 401 degrees fahrenheit for petrochemical feedstock use, other oils over 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.

- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.

- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.

- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.

- Line (44): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha equal to or less than 401 degrees fahrenheit for petrochemical feedstock use, other oils over 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 7 for further detail.

Field production of natural gas plant liquids are reported on Form EIA-816, *Monthly Natural Gas Liquids Report,* and appear on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report.*

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report.* Refinery production of other hydrocarbons, hydrogen, and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report.*

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report,* as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report,* that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report.* Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol as reported on Form EIA-810, *Monthly Refinery Report,* and are published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report.* Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report,* by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. These data are reported on Form EIA-813, *Monthly Crude Oil Report.* Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.

- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.

- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.

- **Tables 6-15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.

- **Table 16** - State government agencies. See Explanatory Note 7.

Table 16 provides estimates of crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report.*

Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report.*

- **Table 19** - Form EIA-810, *Monthly Refinery Report.*

Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*

- **Table 21** - Calculated from Tables 18 and 19.

To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline) the following calculation is performed. Production for each product's net refinery production listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*

- **Tables 35 through 38** - Census export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*

- **Tables 39 through 40** - Form EIA-814, *Monthly Imports Report,* Census Export data (EM 522 and 594), and Form EIA-810, *Monthly Refinery Report.*

A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported monthly on the Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum product are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report*, and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

  Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

  Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report.* Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 7. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior, and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report.* After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports of the various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.

- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.

- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputations as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual.*
- The final estimate is published in the *PSA.*

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month
(Thousand Barrels per Day)

Date of Data Availability	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89
	Reported State Data[c]																	
12-14-87	0																	
1-14-88	2152	0																
2-14-88	5296	2127	0															
3-14-88	8205	3208	2086	0														
4-14-88	8286	8204	5111	2161	0													
5-14-88	8401	8318	7156	5743	2151	0												
6-14-88	8403	8318	8086	8103	5767	2095	0											
7-14-88	8403	8319	8079	8183	7270	2686	2087	0										
8-14-88	8411	8330	8134	8198	8142	7188	4859	2051	0									
9-14-88	8412	8331	8134	8240	8142	8129	7968	5005	2032	0								
10-14-88	8416	8335	8134	8249	8184	8131	8059	7904	5083	2128	0							
11-14-88	8415	8335	8134	8240	8185	8134	8061	7995	7710	5081	2105	0						
12-14-88	8416	8335	8134	8241	8185	8174	8099	7996	7775	7808	4957	2098	0					
1-14-89	8416	8335	8135	8242	8186	8175	8099	7997	7776	7809	7231	4770	2051	0				
2-14-89	8417	8336	8135	8242	8186	8172	8101	7998	7859	7901	7651	7296	4887	2086	0			
3-14-89	8417	8336	8135	8256	8254	8172	8116	8055	7896	7936	7741	7731	7320	5083	2016	0		
4-14-89	8424	8356	8243	8366	8365	8280	8220	8161	8032	8071	7851	7980	7892	7370	4260	2047	0	0
	Producing States Without Reported Monthly Production[d]																	
4-14-89	0	0	1	1	1	1	1	1	1	1	2	2	3	4	24	30	33	33

Type of Estimate	11-87	12-87	1-88	2-88	3-88	4-88	5-88	6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89
	Production Estimate																	
Original[e]	8283	8348	8395	8353	8306	8269	8240	8210	8189	8128	8147	8085	8026	8035	8021	7965	7645	7786
Interim[f]	8330	8340	8245	8376	8347	8268	8203	8158	8059	8063	7900	7974	7985	7975	7913	7830		
Form EIA-182																		
Initial	8162	8144	8017	8239	8138	8106	8009	8045	7853	7895	7752	7797	7821	7845	7746	7663		
Revised	8173	8180	8048	8206	8134	8099	8015	8044	7839	7896	7755	7798	7830	7834	7775			
Final[g]	8397	8318																

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1987 (annual average of 115 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available. Includes EIA prorated monthly production in 1988 (annual average of 97 thousand barrels per day) for three states (Michigan, New York, and Ohio) for which only annual State data are available.

[d] Michigan, New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1987 after their annual reports were received. These data were first reported as of 5-14-88. Michigan, New York, and Ohio are counted as having monthly reported data in 1988 after their annual reports were received. These data were first reported as of 4-14-89.

[e] Original estimates were made on the first of each month.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1987 DOE/EIA 0340(87)/2.

Note 8. Export Data Source

Background

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Export Statistics

Census export statistics used in the *Petroleum Supply Monthly* (PSM) reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 9. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) tracks the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. For weekly surveys, missing or faulty data are imputed using the exponentially smoothed average of a respondent's past reported values. For monthly surveys, the data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This is the case with PSRS weekly data, wherein respondents submit their best estimates. The same situation can also arise at times with the monthly data. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. The weekly and preliminary monthly survey data, as published in the *Weekly Petroleum Status Report* (WPSR) and *Petroleum Supply Monthly* (PSM), respectively, serve to provide this information in a timely manner.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month), become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 10. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement routine frames maintenance activities and provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 11: 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines.

Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The table below provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement.*

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Monthly Petroleum Supply Reporting System (MPSRS) surveys were modified beginning in January 1984. They were:

EIA-810 *Monthly Refinery Report*
EIA-811 *Monthly Bulk Terminal Report*
EIA-812 *Monthly Product Pipeline Report*
EIA-816 *Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 13: 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the *Petroleum Supply Monthly* (PSM). Crude oil pipeline movements are used in the crude oil supply balance at the PAD District level but do not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline And Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *PSM* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6 through 10, "PAD District I to V, Supply and Disposition of Crude Oil and Petroleum Products."
  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 6 through 10 were reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
  - A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

Note 14: 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect. These changes affected the number of operators of petroleum facilities required to complete the monthly surveys in the MPSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. The following table shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	–	–	2,314	318,695

[a] Stocks as of December 31, 1985.

and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSM* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District"
  - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District"
  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Tables 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District"
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source"
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.
- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District"
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 15: 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

- Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affects *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSM* statistics. The principal differences in the *PSM* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 16. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989:

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*
- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene) were added to Form EIA-810, *Monthly Refinery Report.*
- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*
- Bonded imports of jet fuel and fuel oils and imports of liquefied petroleum gases (LPGs) previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*
- Exports of butane/propane and ethane/propane mixtures are split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.
- The reporting of products other than Natural Gas Liquids by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*
- Fractionators were required to report only end-of-month stocks of natural gas liquids on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 will be revised to account for the adjustment in the *Petroleum Supply Annual* scheduled for publication May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

Summary Statistics Tables

- "Stock Withdrawal" was renamed "Stock Change" and is a Disposition item rather than a Supply one. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.
- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes (continued)

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.
- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.
- Tables showing net imports by country for the current month and year to date (Tables 39 and 40) were added.
- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.
- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts"
    - Stocks at natural gas processing plants by Refining Districts were moved from the old Table 24 stock table and included with net production of petroleum products at natural gas plants.
    - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.
- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District"
    - Net production of olefins (ethylene, propylene, and butylene) was added.
    - Net production of naphthenic and paraffinic lubricants was added
    - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.
- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts"
    - Stocks at refineries by Refining District were added from the old stock table (Table 24).
    - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.
- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin"
    - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
    - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.
- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination"
    - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.
- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District"
    - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.
    - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

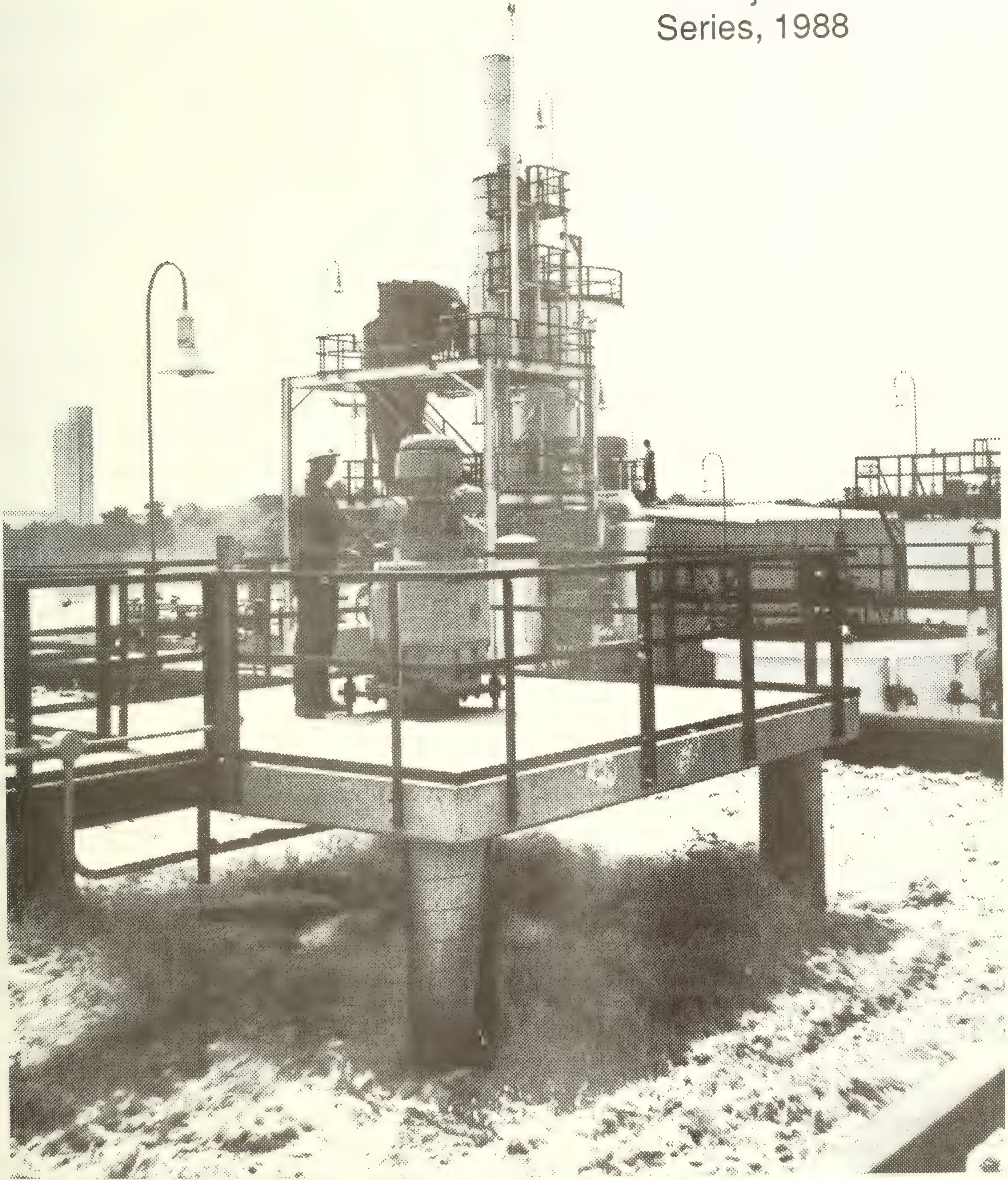
Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

Appendix C

Impact of Resubmissions on Major Series, 1988



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1988
(Thousand Barrels per Day, Except Where Noted)

	January		February		March		April		May		June	
Product	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs												
Crude Oil	12,975	-55	12,715	-74	13,072	-56	13,167	-32	13,472	-47	13,528	-42
LPGs	366	18	336	31	266	26	256	21	253	24	234	22
Production												
LPGs	1,723	10	1,757	13	1,802	17	1,796	10	1,809	8	1,804	10
Finished Motor Gasoline	6,723	7	6,736	(s)	6,695	20	6,906	1	6,847	3	6,983	0
Naphtha-Type Jet Fuel	184	(s)	178	(s)	209	2	203	0	229	(s)	208	0
Kerosene-Type Jet Fuel	1,231	0	1,205	0	1,243	-1	1,088	0	1,060	-1	1,133	1
Kerosene	104	0	118	(s)	68	(s)	50	0	48	0	55	0
Distillate Fuel Oil	3,008	1	2,683	-8	2,720	-9	2,869	(s)	2,931	1	2,893	0
Residual Fuel Oil	1,009	-6	997	-13	944	-1	951	7	866	1	881	-1
Imports												
Crude Oil	4,619	43	4,692	-43	4,788	80	5,126	41	5,234	105	5,055	267
Finished Motor Gasoline	324	33	365	33	318	31	349	34	415	19	424	4
Naphtha-Type Jet Fuel	3	0	3	0	2	0	3	0	4	0	3	0
Kerosene-Type Jet Fuel	80	3	64	4	95	0	83	-2	101	3	71	4
Distillate Fuel Oil	355	56	330	46	243	4	208	2	228	25	209	12
Residual Fuel Oil	737	68	792	112	610	41	465	31	423	9	349	-13
Other Products	556	65	503	110	506	62	611	99	647	83	629	80
Stocks (Thousand Barrels)												
Crude Oil	345,479	104	347,835	186	353,625	378	357,131	246	357,724	1,941	359,001	-143
Unfinished Oils	95,338	646	97,786	722	102,134	339	102,847	269	112,069	208	114,952	471
LPGs	80,741	-1,186	70,191	-139	68,808	-323	79,671	-344	89,992	-23	99,988	-83
Total Motor Gasoline	239,464	804	240,661	697	231,258	485	225,956	744	225,644	464	208,969	1,119
Naphtha-Type Jet Fuel	8,366	-794	6,731	-645	7,156	-517	6,713	-437	7,397	-544	6,750	-9
Kerosene-Type Jet Fuel	37,912	64	36,889	-151	39,548	-21	39,270	-250	39,392	-182	38,990	-179
Distillate Fuel Oil	127,155	476	109,640	189	89,312	54	94,290	121	104,452	-230	110,662	-244
Residual Fuel Oil	46,628	-129	45,465	97	44,057	166	43,245	72	45,746	573	42,123	42
Product Supplied												
LPGs	2,069	31	1,982	-55	1,710	-3	1,339	-10	1,350	-26	1,343	-10
Finished Motor Gasoline	6,679	17	7,004	36	7,265	57	7,384	29	7,269	31	7,838	-21
Naphtha-Type Jet Fuel	173	26	237	-5	197	-2	221	-3	208	3	233	-18
Kerosene-Type Jet Fuel	1,360	1	1,270	12	1,200	-5	1,167	5	1,153	(s)	1,202	4
Distillate Fuel Oil	3,517	41	3,511	48	3,544	-1	2,870	(s)	2,757	37	2,820	13
Residual Fuel Oil	1,578	67	1,601	91	1,434	38	1,272	40	945	-6	1,102	4
Major Products Supplied	15,376	183	15,605	127	15,350	85	14,253	61	13,682	39	14,538	-28

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Table C1. Impact of Resubmissions on Major Series, 1988 (Continued)

(Thousand Barrels per Day, Except Where Noted)

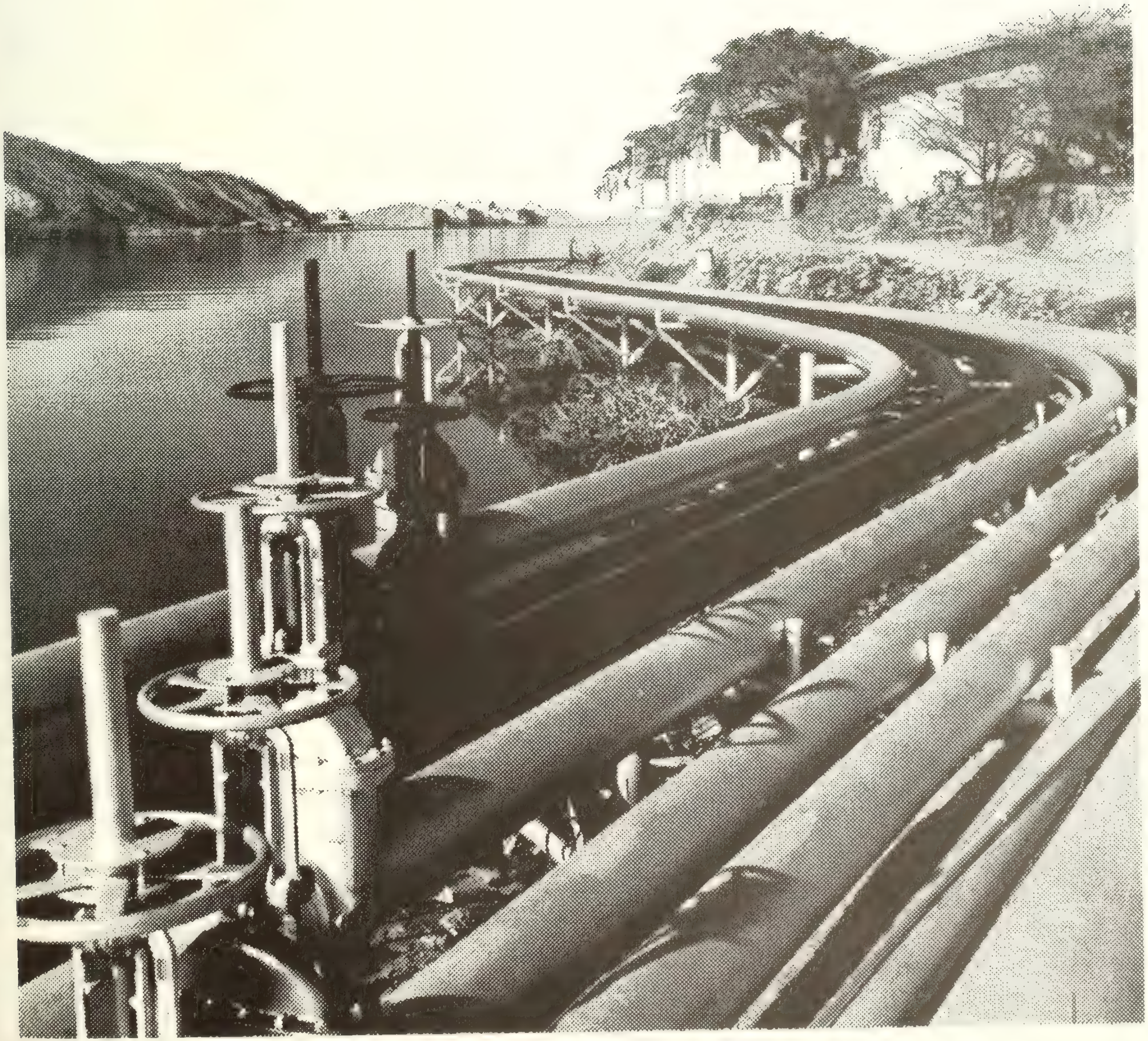
Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Avg Difference
Inputs													
Crude Oil	13,663	-47	13,797	-45	13,309	-48	13,188	-63	13,196	-39	13,433	-52	-50
LPGs	228	20	241	21	251	23	296	21	425	21	441	20	22
Production													
LPGs	1,831	12	1,848	(s)	1,837	3	1,869	3	1,831	4	1,809	1	7
Finished Motor Gasoline	7,159	0	7,204	5	6,948	(s)	6,875	-18	7,057	4	7,303	0	1
Naphtha-Type Jet Fuel	209	(s)	206	0	198	0	208	(s)	219	0	217	0	(s)
Kerosene-Type Jet Fuel	1,155	(s)	1,138	(s)	1,178	-1	1,158	(s)	1,118	0	1,259	0	(s)
Kerosene	64	0	81	0	78	2	80	(s)	99	0	99	(s)	(s)
Distillate Fuel Oil	2,783	1	2,844	4	2,779	-1	2,830	-3	2,905	4	3,068	0	-0
Residual Fuel Oil	913	-7	863	3	859	-8	863	-11	923	-7	1,067	2	-3
Imports													
Crude Oil	5,006	94	5,039	51	5,183	8	5,542	9	5,017	53	5,225	5	59
Finished Motor Gasoline	461	21	465	29	403	40	363	-10	451	0	277	(s)	19
Naphtha-Type Jet Fuel	3	0	3	0	3	0	3	0	3	0	3	0	0
Kerosene-Type Jet Fuel	78	6	100	0	59	(s)	136	7	76	0	71	(s)	2
Distillate Fuel Oil	205	16	270	9	292	15	324	12	308	19	409	(s)	17
Residual Fuel Oil	436	43	515	66	566	132	522	81	765	20	942	33	51
Other Products	571	122	541	58	520	69	560	65	666	78	530	9	74
Stocks (Thousand Barrels)													
Crude Oil	349,330	160	333,170	394	328,448	112	339,607	-19	337,049	-35	331,250	-891	202
Unfinished Oils	113,600	388	111,078	280	109,168	51	108,951	63	112,556	53	99,813	45	294
LPGs	111,906	-219	120,611	-29	121,620	-425	119,923	-178	115,091	-1,515	98,885	-1,501	-497
Total Motor Gasoline	213,757	1,516	218,602	1,495	220,594	752	217,313	377	221,094	141	228,231	172	730
Naphtha-Type Jet Fuel	6,710	39	6,861	32	6,492	11	6,316	0	6,436	0	6,051	0	-238
Kerosene-Type Jet Fuel	40,297	-149	39,971	-225	40,317	-257	41,032	-277	40,018	-350	37,677	46	-160
Distillate Fuel Oil	119,434	521	125,185	504	130,976	475	127,949	299	128,724	81	123,469	48	191
Residual Fuel Oil	41,072	-65	37,840	167	44,220	372	42,405	65	45,089	-1,086	44,548	73	28
Product Supplied													
LPGs	1,416	-4	1,517	-28	1,704	-7	1,787	-26	1,753	28	2,029	-19	-10
Finished Motor Gasoline	7,473	8	7,511	45	7,349	55	7,287	-16	7,369	10	7,344	(s)	20
Naphtha-Type Jet Fuel	213	-1	204	(s)	206	1	214	(s)	218	0	230	0	(s)
Kerosene-Type Jet Fuel	1,187	5	1,234	3	1,216	(s)	1,269	8	1,219	2	1,326	-12	1
Distillate Fuel Oil	2,647	-7	2,860	13	2,806	15	3,204	15	3,153	30	3,560	1	17
Residual Fuel Oil	1,177	39	1,258	62	1,112	117	1,263	80	1,453	52	1,756	-3	48
Major Products Supplied	14,113	41	14,584	95	14,393	181	15,024	61	15,165	122	16,245	-33	77

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr.60^\circ F/60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° F to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included,

but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil .*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400° F at the 10-percent recovery point and 550° F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540° F and 640° F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a maximum distillation temperature of 550° F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640°F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.

2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit are reprocessed and are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° F to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, (C_6H_{14}). It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C_4); an alkylation process feedstock, and normal pentane and hexane into isopentane, (C_5); and isohexane, (C_6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> ***Paraffinic.*** Includes all grades of bright stock and neutrals with a Viscosity Index >75.
>
> ***Naphthenic.*** Includes all lubricating oil base stocks with a Viscosity Index <75.
>
> ***Note:*** The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> ***Exceptions:*** Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted paraffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and speciality oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

> ***Finished Leaded Gasoline.*** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of

phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 °F.

Naphtha Less Than 401° F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, ($C5H12$), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Operating Ratio. Represents the utilization of the atmospheric crude oil distillation units. The ratio is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401° F. See Petrochemical Feedstocks.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401° F" and "Other Oils Equal To or Greater Than 401° F."

Naphtha Less Than 401° F. A naphtha with a boiling range of less than 400° F that is intended for use as a petrochemical feedstock.

Other Oils Equal To or Greater Than 401° F. Oils with a boiling range of over 400° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, ($C3H8$). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids; other hydrocarbons and alcohol; and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000° F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 °F (D1321)-60 maximum. Viscosity at 210° F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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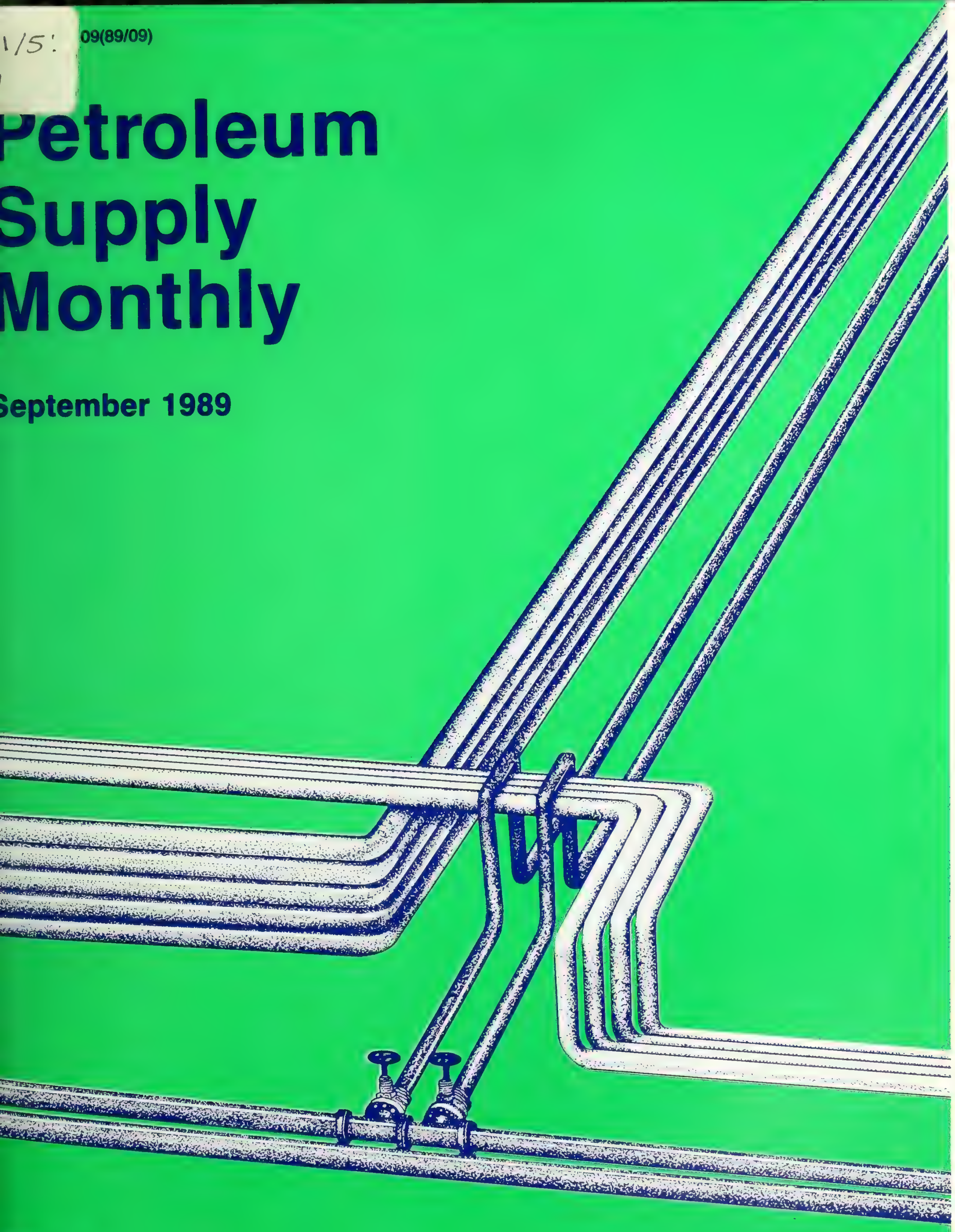

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Cover: An artist's rendering of a typical pipeline network moving crude oil and petroleum products at a refinery complex.

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September 1989

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Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in "Primary Supply." Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
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Timeliness And Accuracy of Petroleum Supply Data	July 1989
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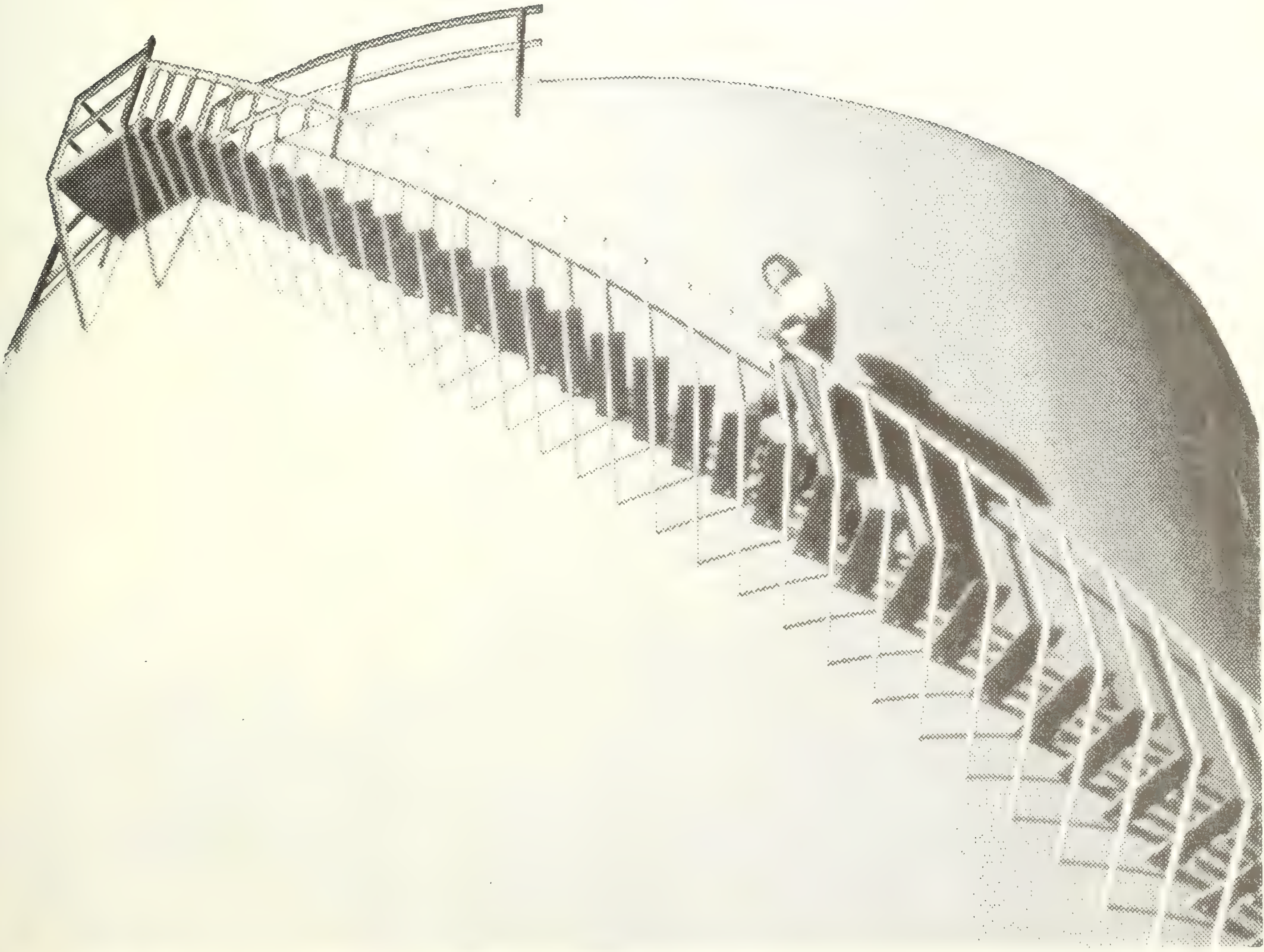
Feature Article



A refinery worker makes his way around a towering storage tank to check the tank level.

Comparisons of Independent Statistics on Petroleum Supply

by Robert G. Harper III and Audrey E. J. Corley

Introduction

The Petroleum Supply Division (PSD) of the Energy Information Administration (EIA) collects and publishes information on petroleum supply and disposition in the United States obtained through the Petroleum Supply Reporting System (PSRS). Data from this system are published in the *Weekly Petroleum Status Report* (WPSR), *Petroleum Supply Monthly (PSM), and Petroleum Supply Annual (PSA).*

This article compares final petroleum data published in the PSA with similar petroleum data obtained from other sources. Data comparisons are presented for 1979 through 1988, for the following series: crude oil production, crude oil imports, motor gasoline supplied, distillate fuel oil supplied, and residual fuel oil supplied. Imports of motor gasoline, distillate fuel oil and residual fuel oil are compared to other data sources for 1986 through 1988.

Crude Oil Production

Crude oil production statistics (including lease condensate) from the American Petroleum Institute (API), the Oil and Gas Journal (OGJ) and EIA's Reserves and Natural Gas Division (RNGD) are compared with statistics from the *Petroleum Supply Annual* (Table FE1). Crude oil production statistics published in the PSA are based on data collected by State conservation agencies and by the U.S. Minerals Management Service, which collects data on crude oil produced on federally-owned offshore leases.

Production estimates from API are also based on data provided by State conservation agencies. From 1979 through 1988, API crude oil production statistics were within 0.6 percent of the PSA volumes for every year except 1984.

Crude oil production estimates developed by the Oil and Gas Journal (OGJ) are based on data obtained from State conservation agencies and historical State production levels. In 1988, OGJ statistics were 1.1 percent higher than PSA statistics.

EIA's RNGD publishes the *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report.* These crude oil production estimates are based on data from a sample survey Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." Survey response is mandatory; currently, there are

Table FE1. Production of Crude Oil (Including Lease Condensate) by Source, 1979-1988

	PSA	API		OGJ		RNGD	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1988	2,979	2,967	99.6	3,013	101.1	2,973	99.8
1987	3,047	3,028	99.4	3,034	99.6	3,035	99.6
1986	3,168	3,182	100.4	3,195	100.9	3,142	99.2
1985	3,275	3,261	99.6	3,223	98.4	3,220	98.3
1984	3,250	3,197	98.4	3,173	97.6	3,216	99.0
1983	3,171	3,175	100.1	3,161	99.7	3,177	100.2
1982	3,157	3,164	100.2	3,156	100.0	3,107	98.4
1981	3,129	3,140	100.4	3,135	100.2	3,110	99.4
1980	3,146	3,160	100.4	3,147	100.0	3,134	99.6
1979	3,121	3,130	100.3	3,168	101.5	3,102	99.4

Sources: •PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1988, Table 2; *Petroleum Statement Annual*, DOE/EIA-0108, 1979 and 1980, Table 6. •API: American Petroleum Institute, *Monthly Statistical Report*, 1979 through 1988. •OGJ: *Oil and Gas Journal*, 1979 through 1988. •RNGD: *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*, DOE/EIA-0216, Crude Oil, 1979 through 1988, Table 6 ; Lease Condensate, 1979 through 1984, Table 16, 1985, Table 14, and 1986 through 1988, Table 15.

over 3,300 respondents to the survey. The RNGD and PSA statistics were in close agreement over the 10-year period, 1979 through 1988, with an average difference of 0.7 percent. There was a difference of only 0.2 percent between the RNGD data and PSA data reported in 1988.

Crude Oil Imports

Data on crude oil imports are collected on survey Form EIA-814, "Monthly Imports Report." Survey respondents to the form include all companies that import crude oil, unfinished oils, and finished petroleum products into the United States and Puerto Rico. The PSA statistics on imports into the United States, excluding imports into Puerto Rico and other U.S. possessions, are compared with API and the U.S. Bureau of the Census (Census) statistics for crude oil imports (Table FE2).

API data on crude oil imports are collected by a port-of-entry survey. Prior to 1985, API obtained data on refinery receipts of crude oil submitted by members on a voluntary basis. Since the survey does not include crude oil imported by the Strategic Petroleum Reserve (SPR), data from the PSA on volumes of crude oil imported for the SPR have been added to API data for comparison purposes. In 1988, the adjusted API data were 0.4 percent lower than PSA statistics.

The Bureau of the Census obtains data on crude oil imports from the U.S. Customs Service. Importers of crude oil or petroleum products into the United States must file either Form CF-7501, "Customs Entry Document," or Form CF-7505, "Warehouse Withdrawal Form." Those forms are processed, tabulated, and published in report FT-246, *Annual U.S. Imports for Consumption and General Imports*. Data on imports into the United States from Puerto Rico and other U.S. possessions are excluded from Census Bureau data. The Census data are also adjusted to reflect the actual date of import. In 1987, the adjusted Census data were 4.6 percent lower that the PSA annual average. This represents the biggest discrepancy in the 10-year period; and was largely due to a one-time misreporting of lease condensate data. During 1987, some companies reported lease condensate to Census (through the Customs Entry Document). The volume of condensate was over 53 million barrels. When those data are added to the crude oil data from the Census, the discrepancy between Census and PSA data decreased to 1.5 percent, with the PSA volume higher than that of the Census. In 1988, the adjusted Census data were 1.0 percent higher than PSA statistics.

Product Supplied

Product supplied, as reported in the PSA, is a calculated item used to measure the volume of petroleum products available for domestic consumption. These estimates are generated for each petroleum product by adding production, imports, and net stock changes, and then subtracting refinery inputs and exports of the product. Product supplied represents the volume of product which has left the primary supply sector (refineries, gas plants, pipelines, bulk terminals and importers) and, hence is available for consumption.

Motor Gasoline Supplied

Table FE3 compares PSA statistics on motor gasoline supplied with data from the EIA's Petroleum Marketing Division (PMD), the American Petroleum Institute (API), and the Federal Highway Administration (FHWA). PMD survey Form

Table FE2. Crude Oil Imports into United States (excluding U.S. Possessions) by Source, 1979-1988

	PSA	API[a]		Census[b]	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1988	1,869	1,861	99.6	1,888	101.0
1987	1,706	1,697	99.5	1,627	95.4
1986	1,525	1,501	98.4	1,540	101.0
1985	1,168	1,164	99.7	1,170	100.2
1984	1,254	1,303	103.9	1,208	96.3
1983	1,215	1,232	101.4	1,199	98.7
1982	1,273	1,275	100.2	1,300	102.1
1981	1,605	1,617	100.7	1,635	101.9
1980	1,926	1,917	99.5	1,942	100.8
1979	2,380	2,346	98.6	2,415	101.5

[a] API statistics include PSA statistics for crude oil imported for the Strategic Petroleum Reserve.
[b] Census statistics are adjusted to reflect the geographic coverage and reporting period of the PSA.

Sources: • PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1988, Table 2; *Petroleum Statement Annual*, DOE/EIA-0108, 1979 and 1980, Table 1; • API: American Petroleum Institute, *Monthly Statistical Report*. • Census: Bureau of the Census, FT-246, *Annual U.S. Imports for Consumption and General Imports: TSUSA*, IA-245X, *Annual U.S. Imports for Consumption and General Imports: TSUSA*, 1980 through 1985; IM-115 Data Tape, 1986 through 1988.

Table FE3. Motor Gasoline Supplied for Domestic Use by Source, 1979-1988

Year	PSA	PMD		API		FHWA	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1988	2,685	2,874	107.0	2,678	99.7	2,702	100.6
1987	2,630	2,760	104.9	2,611	99.3	2,677	101.8
1986	2,567	2,733	106.5	2,580	100.5	2,630	102.5
1985	2,493	2,691	107.9	2,476	99.3	2,553	102.4
1984	2,449	2,552	104.2	2,459	100.4	2,498	102.0
1983	2,417	2,495	103.2	2,420	100.1	2,434	100.7
1982	2,387	2,451	102.7	2,376	99.5	2,413	101.1
1981	2,404	2,431	101.1	2,379	99.0	2,446	101.7
1980	2,408	2,573	106.9	2,523	104.8	2,486	103.2
1979	2,568	2,749	107.0	2,579	100.4	2,649	103.2

Sources: • PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340,1981 through 1988, Table 2; *Petroleum Statement Annual* DOE/EIA-0108, 1979 and 1980, Table 2. • PMD: Energy Information Administration, Form EIA-25, "Prime Supplier's Monthly Report", 1979 through 1982; Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly*, DOE/EIA-0380, 1983 through 1984; *Petroleum Marketing Annual*, DOE/EIA-0487, 1985 through 1988. • API: American Petroleum Institute, *Monthly Statistical Report*, 1979 through 1988. • FHWA: Federal Highway Administration, *Highway Statistics*, 1979 through 1988, Tables MF-21A and MF-24.

EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption" monitors first sales into a State for consumption in that State. The respondent universe consists of all refiners and gas plant operators, selected large importers, and interstate resellers or distributors. Respondents to the EIA-782C survey are instructed to exclude volumes of sales made to the other survey companies. Failure to exclude these petroleum volumes properly, could result in double reporting, which would mean inflated volume totals at aggregate data levels. Lists of the survey companies are distributed, and PMD works closely with many respondents to ensure that volumes are not duplicated. In 1988, the PMD volume of motor gasoline was approximately 7.0 percent above the PSA volume. This is the third time since 1979 that the difference has equaled 7.0 percent or more.

API statistics on motor gasoline delivered from primary storage are published in the *Monthly Statistical Report*. The API statistics are similar in concept to EIA's product supplied. They are calculated as production of motor gasoline plus imports plus net stock change minus exports. These statistics are based on a historical analysis of the industry and information provided on a voluntary basis by importers and by operators of refineries, bulk terminals, and pipelines. For the eighth straight year, API and PSA statistics have remained within 1.0 percent of each other.

Data from FHWA on total gasoline sales are based on volumes of gasoline reported to State motor fuel tax agencies by wholesale distributors. The FHWA's publication entitled *Highway Statistics* includes data on both highway and nonhighway use of gasoline, minus aviation gasoline. For the entire 10-year period, 1979 through 1988, FHWA statistics have been consistently higher than the PSA statistics; the percentage difference of PSA to FHWA data has declined from 2.5 percent in 1986, to 1.8 percent in 1987, to 0.6 percent in 1988.

Distillate Fuel Oil Supplied

Statistics for distillate fuel oil (including kerosene) supplied from the *Petroleum Supply Annual* are compared with PMD data on distillate fuel oil sales from the survey Form EIA-782C, and with API data on distillate fuel oil delivered from primary storage (Table FE4). In 1982, kerosene was discontinued as a separate category in API's *Monthly Statistical Report*. To adjust for this, kerosene volumes from the PSA were added to API data for comparison purposes.

Between 1979 and 1988, the PMD statistics for first sales of distillate fuel oil and kerosene sold into States for consumption have been higher than the PSA statistics for every year except 1981. For 1988, there was a 7.6 percent difference between PMD and PSA data. API statistics on distillate fuel oil supplied generally have been comparable to PSA statistics. However, there was a 1.0-percent difference between API and PSA data in 1988.

Residual Fuel Oil Supplied

Product supplied data for residual fuel oil are compared with PMD data on first sales of residual fuel oil and API data on residual fuel oil delivered (Table FE5). The PMD statistics for residual fuel have historically been lower than the PSA statistics. A primary reason for the difference between PMD and PSA data may be that some residual fuel oil imported by

Table FE4. Distillate Fuel Oil (Including Kerosene) Supplied by Source, 1979-1988

	PSA	PMD		API	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1988	1,178	1,268	107.6	1,166	99.0
1987	1,121	1,159	103.4	1,122	100.1
1986	1,100	1,173	106.6	1,111	101.0
1985	1,088	1,160	106.6	1,090	100.2
1984	1,083	1,154	106.6	1,093	100.9
1983	1,028	1,045	101.7	1,027	99.9
1982	1,022	1,054	103.1	1,031	100.9
1981	1,079	1,067	98.9	1,109	102.8
1980	1,107	1,181	106.7	1,141	103.1
1979	1,277	1,345	105.3	1,291	101.1

Sources: •PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1988 Table 2; *Petroleum Statement Annual*, DOE/EIA-0108, 1979 and 1980, Table 2, • PMD: Energy Information Administration, Form EIA-25, "Prime Supplier's Monthly Report ," 1979 through 1982; Form EIA-782C,"Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly* , 1983 through 1984; *Petroleum Marketing Annual,* DOE/EIA-0487, 1985 through 1988. •API: American Petroleum Institute, *Monthly Statistical Report*, 1979 through 1988.

utilities for their own use may not be reported on the EIA-782C because all utilities are not included in the survey frame. The difference between PSA and PMD statistics has narrowed from 14.3 percent in 1986, to 8.7 percent in 1987, to the current 5.8 percent in 1988.

The API volumes of residual fuel oil supplied have been close to PSA volumes over the 10-year period, showing no consistent pattern of being higher or lower. From 1982 through 1987, the differences between the PSA and API data have been within 2.0 percent. However, there was a 2.8 percent difference in 1988.

Petroleum Product Imports

Census Bureau data on petroleum product imports are compared with PSA data for distillate fuel oil, motor gasoline, and residual fuel oil for 1986 through 1988. There are a number of differences between PSA statistics and the Census Bureau statistics. The major differences include reporting period, geographical coverage, and product definition (chemical composition versus end use). A computer program was developed to adjust for the geographical coverage and reporting period differences. (That adjustment is made on all tables.) In order to adjust for the differences in product definition,

Table FE5. Residual Fuel Oil Supplied for Domestic Use by Source, 1979-1988

	PSA	PMD		API	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1988	504	475	94.2	490	97.2
1987	462	422	91.3	467	101.1
1986	518	444	85.7	508	98.1
1985	439	411	93.6	433	98.6
1984	501	484	96.6	498	99.4
1983	519	510	98.3	525	101.2
1982	627	574	91.5	622	99.2
1981	762	723	94.9	780	102.4
1980	918	815	88.8	937	102.1
1979	1,032	791	76.6	1,044	101.2

Sources: • PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1988, Table 2; *Petroleum Statement Annual*, DOE/EIA-0108, 1979 and 1980, Table 2. • PMD: Energy Information Administration, Form EIA-25, "Prime Suppliers Monthly Report," 1979 through 1982; Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly*, 1983 through 1984; *Petroleum Marketing Annual,* DOE/EIA-0487, 1985 through 1988. •API: American Petroleum Institute, *Monthly Statistical Report*, 1979 through 1988.

research was conducted to discover the products that may overlap in definition. It was concluded that Census data on distillate fuel oil imports sometimes include light unfinished oils, Census data on motor gasoline imports sometimes include motor gasoline blending components, and Census data on residual fuel oil sometimes include heavy unfinished oils.

Distillate Fuel Oil Imports

In 1988, the difference between PSA and Census distillate fuel oil imports data increased to 18.1 percent. That difference is much larger than the 9.4 percent reported in 1987. However, comparison of Census distillate fuel oil data to PSA distillate fuel oil data plus light unfinished oils, yields a difference of 3.1 percent in 1988. The latter comparison (including light unfinished oils) has had diminishing differences over the 3-year period (Table FE6).

Motor Gasoline Imports

Differences between PSA and Census motor gasoline data imports have decreased in 1988 compared with 1987 and 1986. In 1988, the difference was 11.4 percent and in 1987 and 1986 the differences were 15.1 and 14.0 percent, respec-

Table FE6. Adjustment of Census Product Import Data and Comparison with PSA, 1986-1988 (Thousand Barrels, Except Where Indicated)

	Distillate Fuel Oil			Motor Gasoline			Residual Fuel Oil		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
Census Published Imports	87,234	85,618	118,244	136,594	153,617	167,142	275,157	254,454	302,660
- General	595	1,085	572	644	573	823	484	5,866	1,826
- Preceding Month[a]	37,248	15,813	21,248	66,313	31,136	30,109	139,105	53,628	47,692
+ Succeeding Month[a]	33,124	15,573	19,452	59,499	31,370	27,835	127,968	52,222	41,912
- Into U.S. Territory[b]	413	1,143	2,498	4,569	3,756	9,241	13,495	12,098	19,242
+ From U.S. Territories[b]	14,698	18,765	16,963	10,956	11,838	10,415	34,848	34,140	28,917
Adjusted Census Imports	96,800	101,915	130,341	135,523	161,360	165,219	284,889	269,224	304,729
PSA Imports	90,296	93,176	110,354	118,930	140,204	148,372	244,153	206,138	235,860
Census Imports as Percent of PSA Imports	107.2	109.4	118.1	114.0	115.1	111.4	116.7	130.6	129.2

	Distillate Fuel Oil and Light Unfinished Oils			Motor Gasoline and Blending Components			Residual Fuel Oil and Heavy Unfinished Oils		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
Census Published Imports	87,234	85,618	118,244	136,594	153,617	167,142	275,157	254,454	302,660
- General	595	1,085	572	644	573	823	484	5,866	1,826
- Preceding Month[a]	37,248	15,813	21,248	66,313	31,136	30,109	139,105	53,628	47,692
+ Succeeding Month[a]	33,124	15,573	19,452	59,499	31,370	27,835	127,968	52,222	41,912
- Into U.S. Territory[b]	413	1,143	2,498	4,569	3,756	9,241	13,495	12,098	19,242
+ From U.S. Territories[b]	14,698	18,765	16,963	13,091	15,684	14,466	53,728	55,486	49,692
Adjusted Census Imports	96,800	101,915	130,341	137,658	165,206	169,270	303,769	290,570	325,504
PSA Imports	120,029	114,804	134,491	143,363	162,249	169,342	305,689	293,808	343,322
Census Imports as Percent of PSA Imports	80.6	88.8	96.9	96.0	101.8	100.0	99.4	98.9	94.8

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[a] The Bureau of the Census tabulates data on a "statistical month" basis. This combines data on the basis of the month in which the data are received, regardless of the actual month of import. Therefore, this adjustment (based on Customs entry forms) is intended to alter accountability of Census import data to reflect the actual year of import.

[b] The Bureau of the Census tabulates data on imports into Puerto Rico and the Virgin Islands because U.S. Customs entry zones exist in these locations. The PSA considers only imports into the 50 States and the District of Columbia.

Note: Totals may not equal sum of components due to independent rounding.

Sources: • Census: Bureau of the Census, IM-115 Data Tape 1986-1988. • PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1986-1988., Table 2.

Information on Data Sources

American Petroleum Institute: In this article, API's annual statistics are totals of initial monthly values. The initial API published monthly estimate is derived from API sources, but later API publications reflect revisions using EIA data. PSA statistics on crude oil include imports for the Strategic Petroleum Reserve (SPR) while API statistics do not. Therefore, the following figures for SPR were added to the API figures: 18.8 million barrels in 1988, 26.5 million barrels in 1987, 17.6 million barrels in 1986, 43.1 million barrels in 1985, 71.9 million barrels in 1984, 85.4 million barrels in 1983, 60.2 million barrels in 1982, 93.4 million barrels in 1981, 16.1 million barrels in 1980, and 24.5 million barrels in 1979. The API publishes monthly estimates of motor gasoline, distillate fuel oil, and residual fuel oil delivered from primary storage in thousand barrels per day. In 1982, the API discontinued publishing kerosene as a separate category. PSA values for kerosene supplied (35 million barrels in 1988, 35 million barrels in 1987, 36 million barrels in 1986, 42 million barrels in 1985 and 1984, 46 million barrels in 1983 and 47 million barrels in 1982) have been added to API distillate totals.

Oil and Gas Journal: The *Oil and Gas Journal* publishes weekly averages of crude oil production in thousand barrels per day. These averages are used to produce monthly totals as follows: the average for each week is used as a daily production estimate for each of the days the week covers. For each month, the production estimates for days covered by the month are summed. These totals are converted from thousand to million barrels for this article.

U.S. Bureau of the Census: Census data for 1979 are from computer printouts from the Bureau of the Census Report IM-245X dated December 19, 1980. Data for 1980 through 1985 are from the *Annual U.S. Imports for Consumption and General Imports*. Since 1986, Census data have been available through the IM-115 data tape. Imports to Puerto Rico and the Virgin Islands are excluded. Census data do not include imports into the United States from Puerto Rico and the Virgin Islands.

Petroleum Marketing Division: EIA's Petroleum Marketing Division data are from the Form EIA-25, "Prime Supplier's Monthly Report" (computer printouts), 1979-1982. "Prime supplier" usually is the supplier or producer which makes the first sale of any product into the State. In 1983, the Form EIA-25 was incorporated into the Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption."

tively. When PSA data on motor gasoline blending components were included with motor gasoline data, the difference decreased significantly to 4.0 percent in 1986, to 1.8 percent in 1987, and to less than 0.1 percent in 1988 (Table FE6).

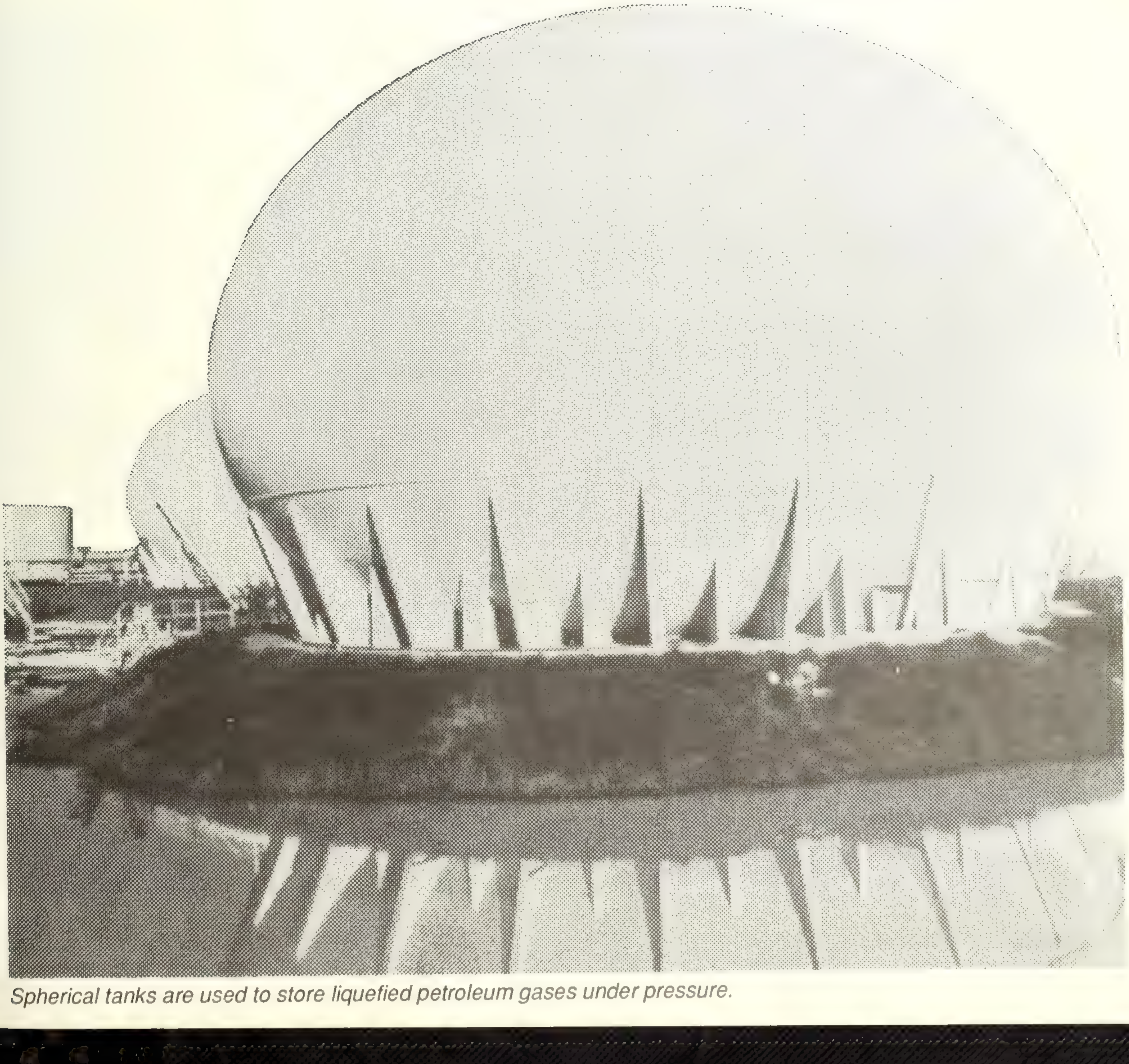
Residual Fuel Oil Imports

The largest difference of all petroleum product imports data was in residual fuel oil. The difference between PSA data and Census data was as high as 30.6 percent in 1987 and 29.2 percent in 1988 (Table FE6). When PSA imports of heavy unfinished oils were added to PSA residual fuel oil to adjust for product classification differences, the discrepancies in the data were substantially reduced to 0.6 percent in 1986, 1.1 percent in 1987, and 5.2 percent in 1988.

Conclusion

The 1988 PSA statistics were relatively close to data from other sources. However, further research and investigative study is expected to be undertaken which will provide the EIA with additional information that will benefit the data collection process.

Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Total demand for petroleum products (measured as product supplied) in the United States averaged 16.6 million barrels per day in September, 0.7 million barrels per day below the August level (Table H1). Decreased demand for motor gasoline and residual fuel oil accounted for most of the reduction. Total demand in September 1989 was 0.4 million barrels per day below the demand during September 1988. For the first 9 months of 1989, demand of 17.1 million barrels per day was slightly below the level for the same period in 1988. The decline in demand thus far in 1989 occurred despite continued growth in the economy.

As a result of damage from Hurricane Hugo on September 17 and 18, 1989, imports from the Virgin Islands declined slightly in September. The decline had no discernible effect on petroleum product demand. However, exports of crude oil to the Virgin Islands dropped to well below 0.1 million barrels per day in September from 0.2 million barrels per day in August 1989. Hurricane damage to the Amerada Hess Refinery in St. Croix crippled the company's refining operations and some storage facilities. The refinery was partially operational by mid-October, and fully operational by mid-November.[1]

During the first 9 months of 1989, domestic crude oil production decreased 6 percent from the comparable period in 1988. This compares to a decline of 2 percent from comparable 1987 levels during the first 9 months of 1988.

Other highlights include the following:

- Continued strong demand for distillate fuel oil, in conjunction with unusually low net imports, contributed to the relatively low stock level of 122 million barrels in September.
- Gross crude oil imports, excluding those for the Strategic Petroleum Reserve (SPR), declined 0.5 million barrels per day in September to 6.0 million barrels per day. This was the first decrease since May 1989.
- Domestic crude oil production from Alaska increased slightly in September, but production from the Lower-48 States decreased. Total production was an estimated 7.6 million barrels per day, slightly below the August 1989 level. For the year-to-date, crude oil production declined 6 percent from the comparable 1988 level, compared with a production decline during the same period of 1988 of 2 percent from the level during the first 9 months of 1987.
- The operable refinery utilization rate decreased from 89.4 percent in August to 88.4 percent in September.

Product Supplied

After a substantial increase in August 1989, demand for motor gasoline fell 0.5 million barrels per day in September to 7.2 million barrels per day, as the summer driving season came to an end. Demand was 0.2 million barrels per day below the September 1988 level. While the average retail price per gallon of motor gasoline continued downward from its 1989 peak of $1.15 in May to $1.07 in September, it was 8 percent higher than in September 1988. Despite declining prices in recent months and an increase in highway travel of 3 percent thus far in 1989, demand for the first 9 months of 1989 was slightly below the level for the comparable period in 1988.

Cooler weather than normal and continued strong transportation use of distillate fuel oil served to keep demand high in

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[1] Amerada Hess Corporation, New York, personal communication, November 21, 1989.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1989			1988	January — September	
	September	August	Difference[a]	September	1989	1988
Products Supplied	16.6	17.3	-0.7	17.1	17.1	17.1
Finished Motor Gasoline	7.2	7.7	-0.5	7.4	7.3	7.3
Distillate Fuel Oil	2.9	3.0	-0.1	2.8	3.1	3.1
Residual Fuel Oil	1.0	1.1	-0.1	1.2	1.3	1.3
Liquefied Petroleum Gases	1.6	1.4	0.1	1.7	1.6	1.6
Other Petroleum Products[b]	4.0	4.1	-0.1	3.9	3.7	3.7
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	13.8	13.9	-0.1	13.3	13.4	13.3
Operable Utilization Rate (percent)	88.4	89.4	-1.0	83.7	86.7	84.5
Imports	7.9	8.5	-0.5	7.5	8.0	7.3
Crude Oil	6.0	6.5	-0.5	5.2	5.8	5.0
Strategic Petroleum Reserve	0.1	(s)	(s)	0.1	0.1	0.1
Other	6.0	6.5	-0.5	5.1	5.7	5.0
Products	1.9	2.0	(s)	2.3	2.2	2.2
Finished Motor Gasoline	0.3	0.4	(s)	0.4	0.4	0.4
Distillate Fuel Oil	0.2	0.3	(s)	0.3	0.3	0.3
Residual Fuel Oil	0.4	0.5	-0.1	0.7	0.6	0.6
Liquefied Petroleum Gases	0.2	0.2	(s)	0.2	0.2	0.2
Other Petroleum Products[b]	0.8	0.7	0.1	0.7	0.7	0.7
Exports	0.7	1.0	-0.3	0.7	0.8	0.8
Crude Oil	(s)	0.2	-0.1	0.1	0.1	0.2
Products	0.6	0.8	-0.2	0.6	0.7	0.7
Total Net Imports	7.3	7.5	-0.2	6.8	7.1	6.5
Stock Change[c]	0.5	0.2	0.3	0.2	0.3	0.1
Crude Oil	-0.1	0.3	-0.5	-0.1	0.1	(s)
Products	0.6	-0.1	0.8	0.2	0.2	0.1
Total Stocks at End of Period (million barrels)	1,670	1,654	15	1,628	--	--
Crude Oil	912	916	-4	883	--	--
Strategic Petroleum Reserve	577	575	2	555	--	--
Other	335	341	-6	329	--	--
Products	757	738	19	745	--	--
Finished Motor Gasoline	186	182	4	183	--	--
Distillate Fuel Oil	122	116	6	131	--	--
Residual Fuel Oil	50	45	5	45	--	--
Liquefied Petroleum Gases	126	126	(s)	121	--	--
Other Petroleum Products[b]	273	269	4	265	--	--

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly,* see Explanatory Note 5.

September. Demand of 2.9 million barrels per day was high for this time of year. Demand for distillate fuel oil was slightly below the August 1989 level, and 0.1 million barrels per day above the level during September 1988. While demand for January through September 1989 of 3.1 million barrels per day was about the same as for the comparable period of 1988, transportation use of diesel fuel accounted for a larger portion of the demand thus far in 1989.

Residual fuel oil demand decreased for the second consecutive month in September. Demand of 1.0 million barrels per day was 0.1 million barrels per day below the level in August 1989, and 0.3 million barrels per day lower than the level of a year earlier. Rising residual fuel oil prices contributed to the decline in demand. Cooler weather than normal in September also affected demand, as reduced air-conditioning needs lowered residual fuel oil use at electric utilities. Year-to-date demand for residual fuel oil declined 1 percent from the level during the comparable period of 1988. Relatively higher prices for residual fuel oil compared to prices during the first 9 months of 1988 resulted in lower demand, causing the utility and industrial markets to switch to alternate fuel where possible.

Demand for LPGs increased 0.1 million barrels per day during September to 1.6 million barrels per day. Propane demand increased 0.1 million barrels per day, related to the beginning of the crop drying season. Although propane demand was close to the level of a year earlier, total LPG demand was 0.1 million barrels per day below the level during September 1988, primarily because of a decline in ethane demand. Year-to-date LPG demand was 1.6 million barrels per day, 1 percent above the level for the same period of 1988. Strong petrochemical feedstock use was primarily responsible for the higher LPG demand thus far in 1989.

Demand for kerosene-type jet fuel of 1.3 million barrels per day in September was slightly higher than the level in August 1989, and 0.1 million barrels per day higher than the level in September 1988. Year-to-date demand for kerosene-type jet fuel averaged 1.2 million barrels per day during 1989, essentially unchanged from 1988. The lack of growth in kerosene-type jet fuel demand thus far in 1989 was related to a decline in commercial air travel caused by higher airfares, and an airline strike earlier in the year.

Product Stocks

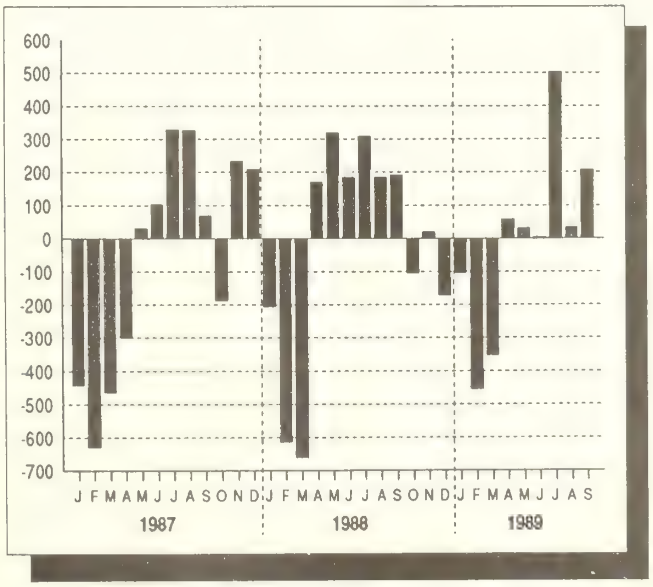
Stocks of petroleum products at the end of September were 757 million barrels, 19 million barrels higher than the level at the end of August 1989. Stocks of motor gasoline, distillate fuel oil, and residual fuel oil increased, while stocks of LPG and kerosene-type jet fuel showed little change from the previous month. Petroleum product stocks at the end of September were 12 million barrels above the level of a year earlier.

Motor gasoline stocks at the end of September of 186 million barrels were 4 million barrels higher than the level at the end of August 1989. Lower demand was largely responsible for the increase in stocks. Stocks at the end of September were 3 million barrels higher than at the end of September 1988.

Despite an increase of 6 million barrels from the August 1989 level, distillate fuel oil stocks of 122 million barrels at the end of September 1989 were 9 million barrels below the level of a year earlier. The relatively low stock level at the end of September reflected a more erratic stock building pattern than usual thus far in 1989 (Figure H1). Distillate fuel oil stocks were lower than normal at the end of 1988, but warmer weather during the first quarter of 1989 caused stock withdrawals to be lower. Consequently, by April 1989, stocks were at normal levels. Substantial stockbuilding usually occurs during the summer months in preparation for the winter heating season. During the summer of 1989, however, significant buildups occurred only in July and September. Demand during the second and third quarters of 1989 was higher than in recent years, helping to slow the stock buildup.

A number of unusual occurrences combined to further hinder U.S. summer stock buildup of distillate fuel oil this year. In recent months, U.S. exports to Japan, Brazil, Venezuela, and other South American and European countries increased dramatically because of refining problems in Venezuela and other countries which normally provide distillate fuel oil internationally. At the same time, international demand for distillate fuel oil was strong, further straining the limited supplies. The tight international supplies and high demand caused the price of distillate fuel oil to rise in recent months, further suppressing incentives to build up distillate fuel oil stocks in the United States.

Figure H1. Distillate Fuel Oil Stock Changes: January 1987-September 1989
(Thousand Barrels per Day)



Source: *Petroleum Supply Monthly*, September 1989, Table S5.

The decrease in demand for residual fuel oil in August and September 1989 caused stocks of residual fuel oil to increase. Stocks at the end of September of 50 million barrels were 5 million barrels above the level at the end of both August 1989 and September 1988. Residual fuel oil stocks had not been this high since November 1987.

LPG stocks at the end of September were 126 million barrels, slightly above the level at the end of August 1989, with all components maintaining about the same level as in August. Stocks were 5 million barrels above the September 1988 level. Ethane stocks were 6 million barrels above the level of a year earlier, primarily because of lower demand thus far in 1989 for ethane as a petrochemical feedstock. Propane was the most economical feedstock for most of the first 9 months of 1989, which contributed to a lower stock level at the end of September than a year earlier. Butane stocks were 3 million barrels higher than year-earlier levels at the end of September 1989, as refinery inputs for winter motor gasoline blending brought butane stocks closer to normal levels.

Kerosene-type jet fuel stocks at the end of September were 42 million barrels, slightly below the level at the end of August 1989, but 2 million barrels above the level at the end of September 1988. Flat demand thus far in 1989 contributed to the year-to-year increase in stocks.

Crude Oil

Domestic crude oil production decreased slightly in September and averaged an estimated 7.6 million barrels per day. Production from Alaska edged upward, while production from the Lower-48 States declined slightly. Estimated average production from Alaska was 1.9 million barrels per day in September, while production from the Lower-48 States was 5.7 million barrels per day. Total U.S. production in September was estimated to be 0.3 million barrels per day below the level for the same month in 1988, with both Alaska and the Lower-48 States showing declines. Year-to-date production averaged an estimated 7.7 million barrels per day, 6 percent below the level during the first 9 months of 1988. The rate of decline thus far in 1989 was much greater than for the comparable period in 1988, when production declined 2 percent from the same period of 1987. Alaskan year-to-date production in 1989 was an estimated 1.9 million barrels per day, 8 percent below the level during the first 9 months of 1988, while production from the Lower-48 States of 5.8 million barrels per day was 6 percent below the level during the comparable period of 1988.

Gross imports of crude oil (excluding SPR) declined 0.5 million barrels per day in September to 6.0 million barrels per day. This was the first decrease since May 1989, but imports were still 0.8 million barrels per day higher than in September 1988. Imports from Canada increased, while those from Saudi Arabia, Nigeria, and Mexico declined from the levels during August 1989. For the first 9 months of 1989, imports of 5.7 million barrels per day were 14 percent higher than for the comparable period in 1988. Reduced domestic crude oil production combined with higher refinery inputs thus far in 1989 contributed to the increase in imports this year.

Crude oil stocks (excluding SPR) were 335 million barrels at the end of September, 6 million barrels below the level at the end of August 1989. Stocks at the end of September were 6 million barrels higher than the level at the end of September 1988.

Refinery Utilization

The operable refinery utilization rate decreased from 89.4 percent in August 1989 to 88.4 percent in September. Gross refinery inputs (crude and other oils) declined slightly to 13.9 million barrels per day, accounting for the lower utilization rate in September. Operable capacity remained at 15.7 million barrels per day in September. The operating utilization rate, which reflects refinery utilization if all idle capacity is removed from the operable capacity, was 92.9 percent in September 1989 (Table H2). This was slightly below the August 1989 operating utilization rate. Both the operable and the operating utilization rates were higher during September 1989 than during September 1988.

Inputs to selected downstream units declined 0.2 million barrels per day in September to 7.1 million barrels per day. Inputs of fresh feed to catalytic crackers, catalytic hydrocrackers, and cokers all decreased. September inputs to selected downstream units were at the lowest level since May, reflecting decreased gasoline production requirements after the summer driving season. Selected downstream inputs during September were 0.2 million barrels per day above year-earlier inputs.

News Highlights

Mississippi River Drought Update

Drought conditions which affected much of the Mississippi River drainage basin in 1988 still persist in 1989, but to a lesser degree. In the upper Mississippi River region, the 200 mile stretch of waterway between Cairo, Illinois and St. Louis, Missouri has experienced low water levels this year, causing emergency measures to be implemented in order to keep barge traffic moving. Dredging operations by the Army Corps of Engineers combined with daily water releases from the Missouri River have prevented severe traffic blockages. As the worst drought in three decades continues to deplete water supplies in the Missouri River basin, the upper Mississippi River remains vulnerable to navigation disruptions.

The Ohio River basin, in contrast, has received substantial

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1988-1989

(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1988												
Gross Refinery Inputs	13,175	12,889	13,241	13,346	13,638	13,710	13,804	13,953	13,356	13,304	13,354	13,554
Operable Refinery Capacity	15,915	15,942	15,888	15,888	15,909	15,934	15,958	15,958	15,965	15,946	15,909	15,919
Idle Capacity[1]	**897**	**1,020**	**873**	**902**	**930**	**1,103**	**1,107**	**1,065**	**841**	**829**	**828**	**1,032**
Idle Three Months or Less	550	368	185	99	235	398	403	248	22	8	75	280
Idle More than Three Months	347	652	688	803	695	705	704	817	819	821	753	752
Operating Capacity[2]	15,018	14,922	15,015	14,986	14,979	14,831	14,851	14,893	15,124	15,117	15,081	14,887
Utilization Rate (percent)												
Operable Capacity	82.8	80.9	83.3	84.0	85.7	86.0	86.5	87.4	83.7	83.4	83.9	85.1
Operating Capacity	87.7	86.4	88.2	89.1	91.0	92.4	92.9	93.7	88.3	88.0	88.5	91.0
1989												
Gross Refinery Inputs	13,510	13,011	13,159	13,130	13,561	14,055	13,954	14,021	13,891	NA	NA	NA
Operable Refinery Capacity	15,689	15,694	15,663	15,665	15,679	15,685	15,685	15,689	15,709	NA	NA	NA
Idle Capacity[1]	**643**	**725**	**738**	**726**	**830**	**575**	**602**	**618**	**759**	**NA**	**NA**	**NA**
Idle Three Months or Less	175	261	225	177	302	46	54	65	211	NA	NA	NA
Idle More than Three Months	468	464	513	549	528	529	548	553	548	NA	NA	NA
Operating Capacity[2]	15,046	14,969	14,925	14,940	14,848	15,111	15,084	15,071	14,950	NA	NA	NA
Utilization Rate (percent)												
Operable Capacity	86.1	82.9	84.0	83.8	86.5	89.6	89.0	89.4	88.4	NA	NA	NA
Operating Capacity	89.8	86.9	88.2	87.9	91.3	93.0	92.5	93.0	92.9	NA	NA	NA

[1] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; or capacity not in operation but is under active repair that can be completed within 90 days.

[2] Operating capacity equals the operable capacity less the total idle capacity.

NA = Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly,* 1989 issues, Table 18; *Petroleum Supply Annual,* Volume 2, 1988, Table 11; Form EIA- 810, "Monthly Refinery Report."

Table H2 has been added to the Highlights Section of the *Petroleum Supply Monthly* to provide supplemental information on the operational status of U.S. refineries. The table includes a breakout of idle capacity into two time segments; (1) capacity reported by refineries that has been idle for three or fewer months and (2) capacity that has been idle for more than three months. In addition, the utilization rate of that portion of total refinery capacity reported by refineries in the "operating" status has been calculated and is provided in the table.

rainfall this year to replenish reservoirs depleted by the lack of rainfall in 1988. The Ohio River, which joins the Mississippi River at Cairo, Illinois, contributes approximately 65 percent of water flow to the lower Mississippi River.[2] Refining and industrial operations along the lower Mississippi River have not experienced the low water conditions suffered in 1988.

The Missouri River basin, however, did not get enough runoff from snowpack or spring and summer rainfall during 1989 for water levels in its depleted reservoirs to be restored to normal operating levels.

Due to the depleted reservoirs in the Missouri River basin, water releases from the Missouri River into the upper Mississippi River were curtailed on November 1, 1989, as a conservation measure, shortening the navigation season by one month. As a result, the Army Corps of Engineers, the Coast Guard and the barge industry are preparing for navigation disruptions in the upper Mississippi River if the channel depths drop to anticipated historic lows. This could disrupt the movement of residual fuel oil and other petroleum products along the upper Mississippi River this fall and winter. Low water conditions and unseasonably cold weather in the winter of 1988 caused some inconvenience to shippers.

Depleted water storage in the Missouri River basin has also led to the loss of hydroelectric power generation. In 1988, 1.2 billion kilowatt-hours (kwh) was lost. Expected additional losses in 1989 and 1990 are 0.7 billion kwh and 0.4 billion kwh respectively. The forecast for hydroelectric power generation in 1990 is 7.3 billion kwh, down from a normal generation rate of 10.0 billion kwh. As a result, power plants in the region have had to make electrical purchases from outside their distribution area to satisfy customer demand.

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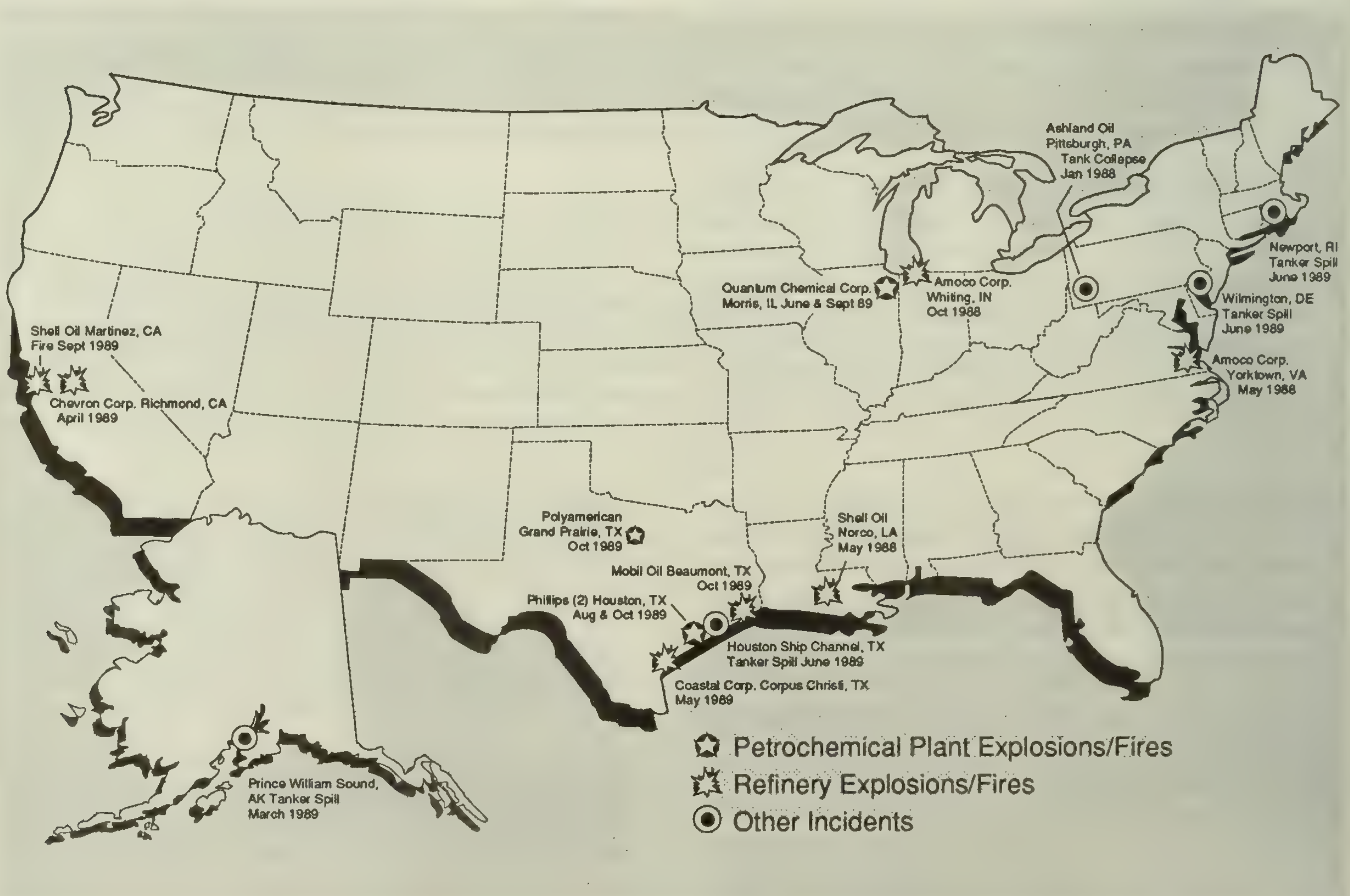
[2] Jim Tuttle, Chief, Water Control Branch, Army Corps of Engineers, Vicksburg, Mississippi, personal communication, November 20, 1989.

Petroleum-Related Accidents

The October 23, 1989 explosion at the Phillips Petroleum plastics plant is the latest in a series of major petroleum-related accidents that have occurred over the past 2 years (Figure H2). The incidence of refinery and petrochemical plant explosions and fires, pipeline ruptures, storage tank failures, explosions on off-shore platforms, or tanker spills has increased during this period. In 1988, three refinery fires or explosions and one major storage tank leakage occurred. In 1989, there were at least four significant refinery accidents, five petrochemical plant fires or explosions, and several tanker oil spills in the United States.

The rash of petroleum-related accidents that have occurred over the past 2 years has resulted in a number of proposals to increase Federal regulation. Some of these proposals are included in the current debate over new clean air legislation in Congress. Additional proposals were introduced during the House Subcommittee on Employment and Housing hearings on the Phillips plastics plant explosion on November 6, 1989. Subcommittee Chairman Thomas Lantos called for an expansion of the scope of the hearings to include a comprehensive assessment of practices at refinery and petrochemical complexes, and for the creation of a regulatory body to investigate industrial accidents.

Figure H-2. Major Petroleum-Related Accidents: 1988-1989



Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	**10,975**	**9,208**	**1,738**	**-11**	**146**	**17,308**	**1,008**
1974 Average	**10,498**	**8,774**	**1,688**	**62**	**117**	**16,653**	[h] **1,074**
1975 Average	**10,045**	**8,375**	**1,633**	[h] **17**	[h] **15**	**16,322**	**1,133**
1976 Average	**9,774**	**8,132**	**1,603**	**39**	**-96**	**17,461**	**1,112**
1977 Average	**9,913**	**8,245**	**1,618**	**170**	**378**	**18,431**	**1,312**
1978 Average	**10,328**	**8,707**	**1,567**	**78**	**-172**	**18,847**	**1,278**
1979 Average	**10,179**	**8,552**	**1,584**	**148**	**25**	**18,513**	**1,341**
1980 Average	**10,214**	**8,597**	**1,573**	**98**	**42**	**17,056**	[h] **1,392**
1981 Average	**10,230**	**8,572**	**1,609**	[h] **290**	[h] **-130**	**16,058**	**1,484**
1982 Average	**10,252**	**8,649**	**1,550**	**136**	**-283**	**15,296**	[h] **1,430**
1983 Average	**10,299**	**8,688**	**1,559**	[h] **214**	[h] **-234**	**15,231**	**1,454**
1984 Average	**10,554**	**8,879**	**1,630**	**199**	**81**	**15,726**	**1,556**
1985 Average	**10,636**	**8,971**	**1,609**	**50**	**-153**	**15,726**	**1,519**
1986 Average	**10,289**	**8,680**	**1,551**	**78**	**124**	**16,281**	**1,593**
1987 January	10,139	8,480	1,582	166	-376	16,684	1,586
February	10,073	8,389	1,618	22	-831	16,908	1,563
March	10,131	8,464	1,598	125	-340	16,165	1,557
April	10,139	8,498	1,590	-50	-532	16,524	1,539
May	9,977	8,336	1,585	-36	116	16,026	1,542
June	9,906	8,279	1,578	165	42	16,830	1,548
July	9,895	8,251	1,582	-33	372	17,113	1,558
August	9,843	8,210	1,571	345	737	16,346	1,592
September	9,851	8,205	1,582	220	236	16,670	1,606
October	10,037	8,364	1,602	661	-523	16,941	1,610
November	10,112	8,397	1,637	355	478	16,343	1,635
December	10,001	8,318	1,621	-405	-482	17,445	1,607
Average	**10,008**	**8,349**	**1,595**	**128**	**-87**	**16,665**	--
1988 January	9,876	8,250	1,579	-43	-294	17,403	1,597
February	10,018	8,374	1,605	133	-868	17,760	1,576
March	10,071	8,374	1,636	219	-748	17,612	1,559
April	9,946	8,288	1,618	190	445	16,561	1,578
May	9,899	8,229	1,627	96	1,048	16,197	1,614
June	9,833	8,170	1,616	43	-109	17,059	1,612
July	9,713	8,040	1,618	-261	819	16,695	1,629
August	9,762	8,079	1,616	-488	307	17,482	1,624
September	9,575	7,895	1,621	-83	245	17,072	1,628
October	9,737	8,023	1,661	399	-333	17,580	1,630
November	9,751	8,023	1,666	3	25	17,620	1,631
December	9,641	7,942	1,634	-188	-911	18,365	1,597
Average	**9,818**	**8,140**	**1,625**	**1**	**-29**	**17,283**	--
1989 January	E 9,638	E 7,913	1,653	130	512	17,211	1,620
February	E 9,469	E 7,830	1,601	63	-704	17,765	1,602
March	E 9,310	E 7,610	1,647	-131	-905	17,907	1,569
April	E 9,462	E 7,747	1,670	496	386	16,561	1,596
May	E 9,480	E 7,807	1,623	266	589	16,488	1,622
June	E 9,213	E 7,660	1,506	-430	-60	17,389	1,608
July	E 9,105	E 7,474	1,552	118	1,178	16,410	1,648
August	E 9,150	E 7,589	1,504	316	-108	17,305	1,654
September*	RE 9,105	RE 7,563	R 1,478	R -135	R 643	R 16,635	R 1,670
October**	PE 9,248	PE 7,644	E 1,533	E *211*	E *51*	E *16,734*	E *1,668*
10-Mo. Average	PE **9,317**	PE **7,683**	E **1,577**	E **92**	E **165**	E **17,035**	--
1988 10-Mo. Average	**9,842**	**8,171**	**1,620**	**19**	**56**	**17,140**	--
1987 10-Mo. Average	**9,999**	**8,347**	**1,589**	**160**	**-103**	**16,617**	--

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[g]
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	229	6,025
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	218	5,892
1975 Average	**6,056**	**4,105**	**1,951**	**209**	**6**	204	5,846
1976 Average	**7,313**	**5,287**	**2,026**	**223**	**8**	215	7,090
1977 Average	**8,807**	**6,615**	**2,193**	**243**	**50**	193	8,565
1978 Average	**8,363**	**6,356**	**2,008**	**362**	**158**	204	8,002
1979 Average	**8,456**	**6,519**	**1,937**	**472**	**235**	237	7,984
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	258	6,365
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	367	5,401
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	579	4,298
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	575	4,312
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	541	4,715
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	577	4,286
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	631	5,439
1987 January	6,353	4,385	1,968	703	84	619	5,650
February	5,984	3,866	2,118	977	284	694	5,007
March	5,794	3,779	2,015	720	150	570	5,074
April	5,911	4,132	1,779	870	247	624	5,041
May	6,073	4,340	1,732	666	69	597	5,407
June	6,769	4,807	1,962	669	116	554	6,099
July	7,588	5,295	2,293	680	149	531	6,908
August	7,454	5,510	1,944	664	141	523	6,790
September	7,178	5,110	2,068	795	116	680	6,382
October	7,068	5,142	1,926	646	84	562	6,422
November	7,068	5,013	2,055	737	164	573	6,331
December	6,833	4,640	2,194	1,057	220	838	5,776
Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 January	7,181	4,662	2,519	885	206	679	6,296
February	7,256	4,650	2,605	864	146	718	6,392
March	6,944	4,868	2,076	834	213	622	6,110
April	7,270	5,167	2,103	676	114	562	6,594
May	7,469	5,339	2,130	814	138	676	6,655
June	7,239	5,322	1,917	938	138	800	6,301
July	7,297	5,100	2,197	826	186	640	6,471
August	7,386	5,089	2,296	814	152	661	6,572
September	7,506	5,212	2,294	673	119	554	6,833
October	7,830	5,551	2,279	732	166	566	7,098
November	7,714	5,070	2,644	717	148	569	6,997
December	7,727	5,230	2,497	1,008	129	879	6,719
Average	**7,402**	**5,107**	**2,295**	**815**	**155**	**661**	**6,587**
1989 January	8,040	5,521	2,519	760	136	624	7,280
February	7,909	5,263	2,646	875	208	666	7,034
March	7,392	4,993	2,400	860	156	704	6,532
April	8,034	5,745	2,289	810	139	670	7,224
May	7,697	5,665	2,032	792	131	661	6,905
June	7,869	5,915	1,954	975	243	732	6,895
July	8,324	6,200	2,123	780	69	711	7,544
August	8,481	6,521	1,960	967	162	805	7,514
September*	R 7,947	R 6,031	R 1,916	R 655	R 32	R 623	R 7,292
October**	E *8,179*	E *6,273*	E *1,907*	E 852	E 105	E 747	E 7,327
10-Mo. Average	E **7,988**	E **5,817**	E **2,171**	E **832**	E **138**	E **695**	E **7,156**
1988 10-Mo. Average	**7,338**	**5,098**	**2,241**	**806**	**158**	**647**	**6,533**
1987 10-Mo. Average	**6,623**	**4,644**	**1,980**	**736**	**142**	**594**	**5,887**

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

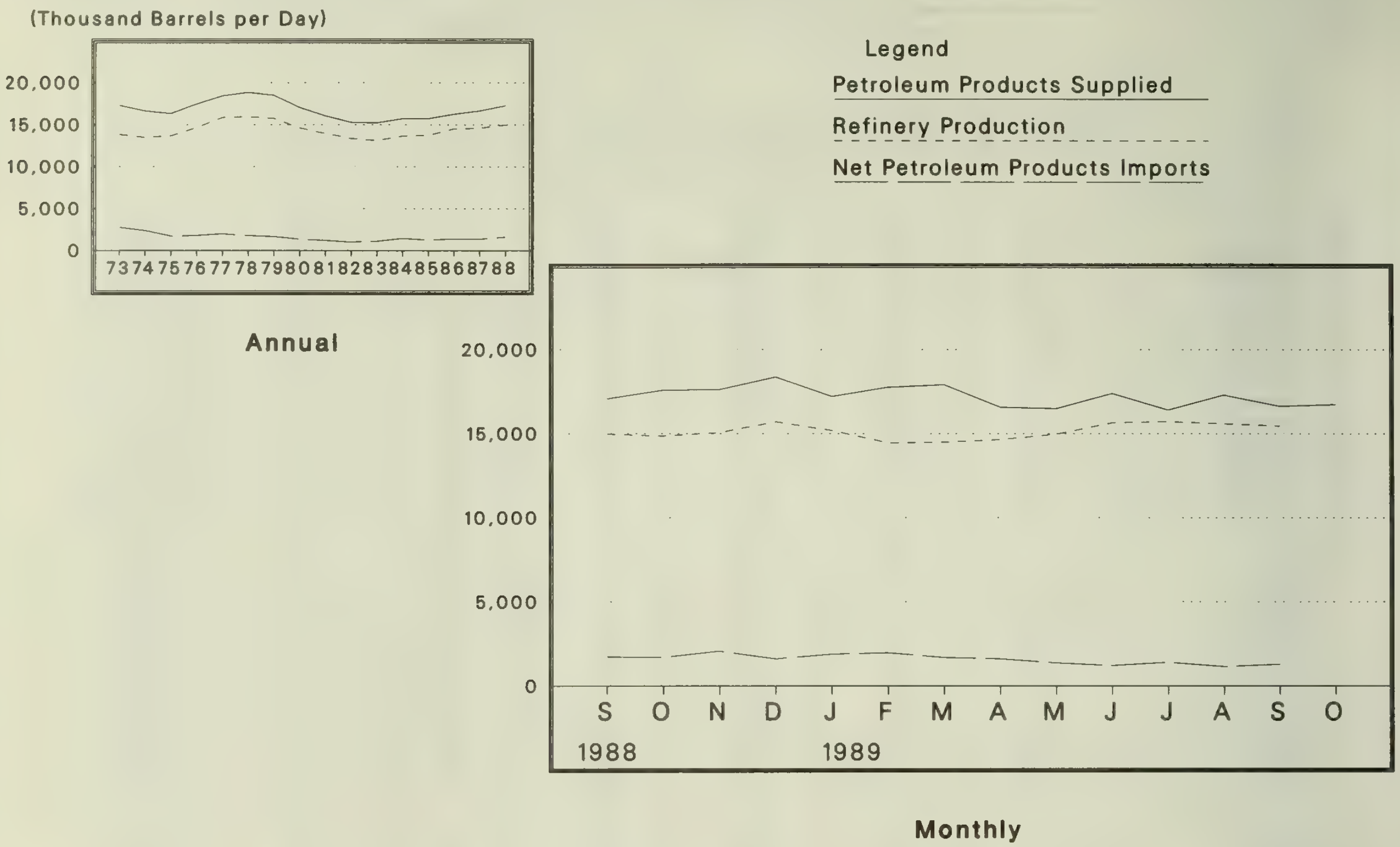
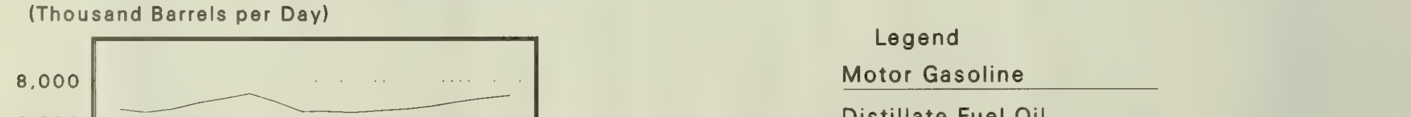
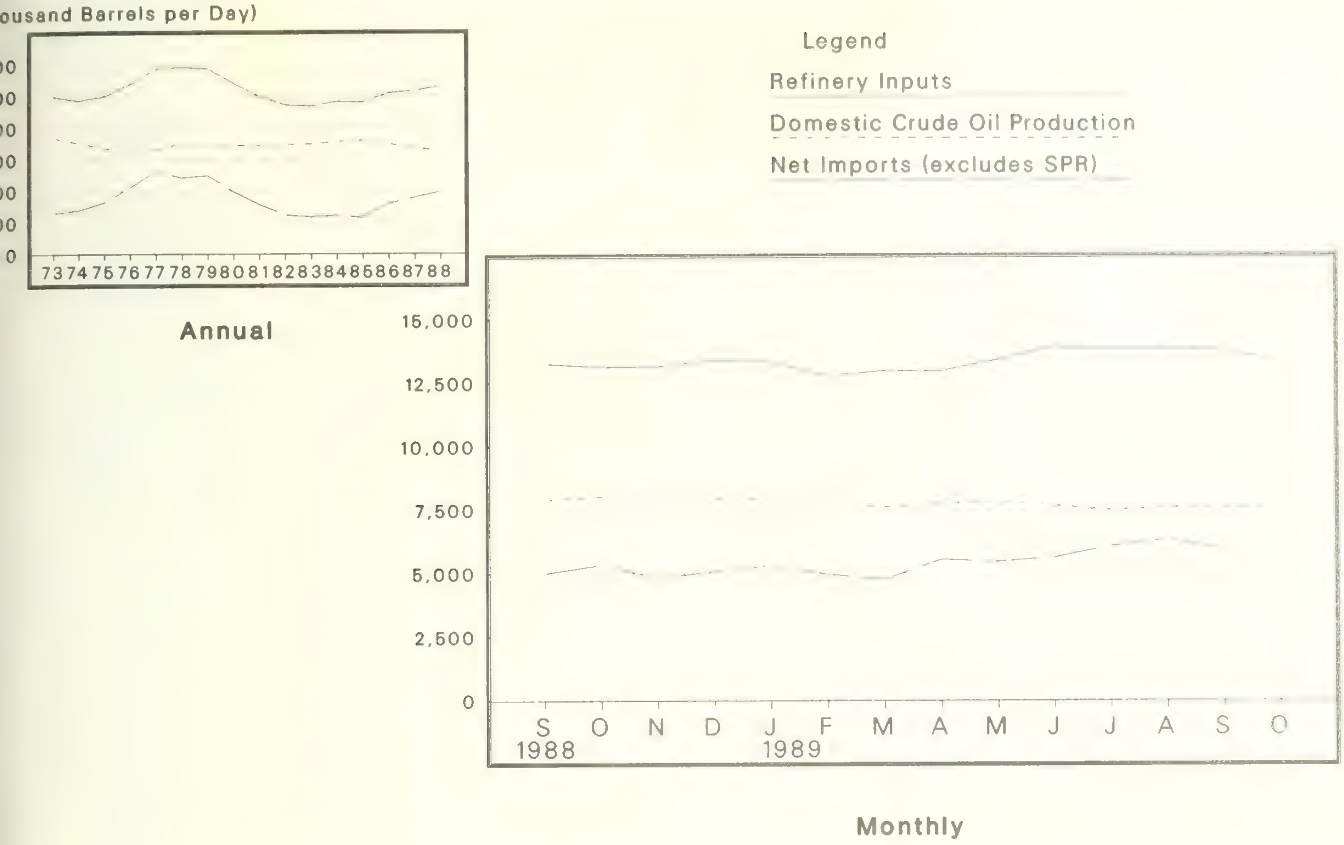


Figure S2. Petroleum Products Supplied



gure S3. Crude Oil Supply and Disposition



ure S4. Crude Oil Ending Stocks

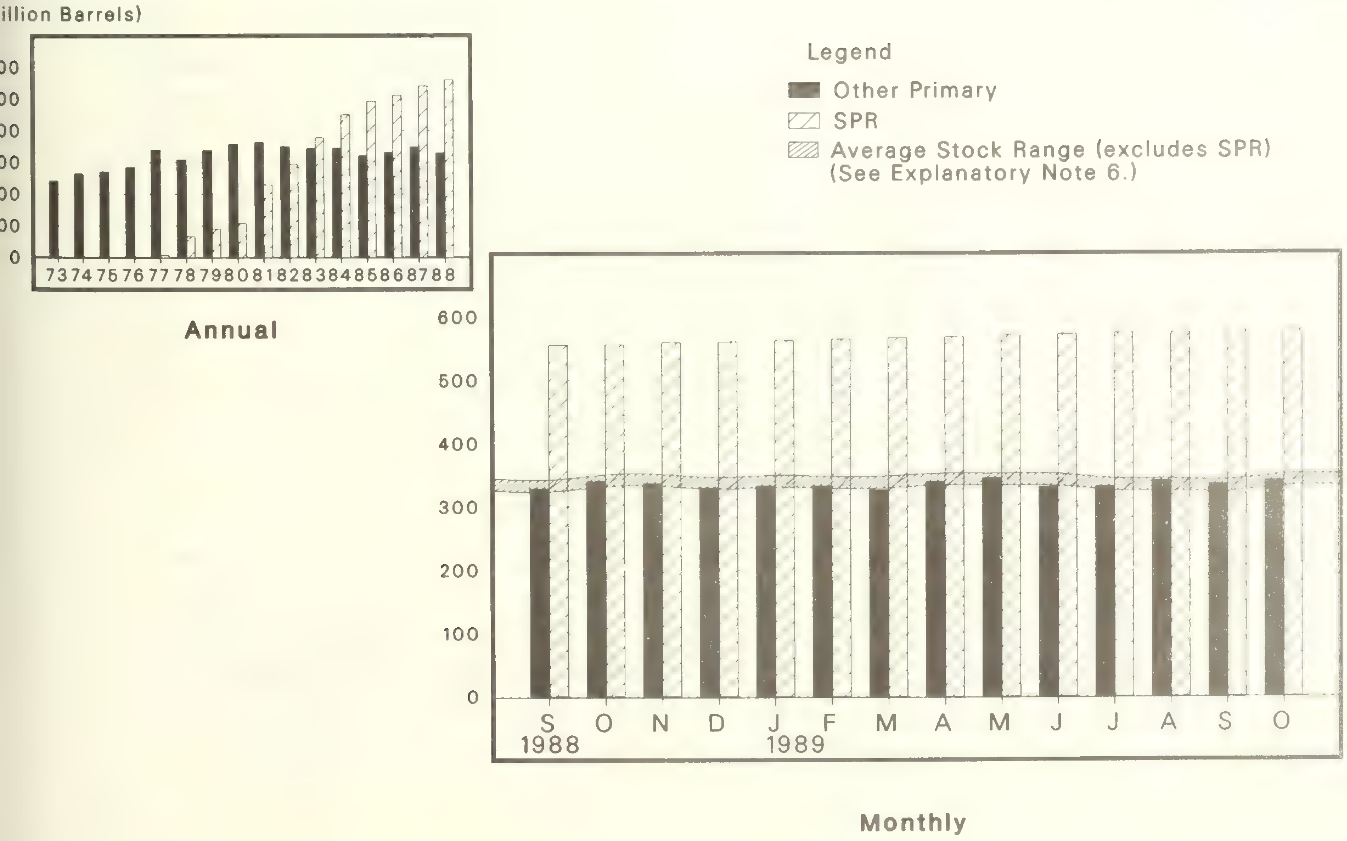


Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports			Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Total Domestic	Alaskan	Total	SPR[d]	Other			
		Thousand Barrels per Day							
1973	**Average**	**9,208**	**198**	3,244	--	3,244	**3**	**-19**	**13**
1974	**Average**	**8,774**	**193**	3,477	--	3,477	**-25**	**-15**	**13**
1975	**Average**	**8,375**	**191**	4,105	--	4,105	**17**	**-17**	**13**
1976	**Average**	**8,132**	**173**	5,287	--	5,287	**77**	**-18**	**15**
1977	**Average**	**8,245**	**464**	6,615	21	6,594	**-6**	**-14**	**16**
1978	**Average**	**8,707**	**1,229**	6,356	162	6,195	**-57**	**-14**	**16**
1979	**Average**	**8,552**	**1,401**	6,519	67	6,452	**-11**	**-13**	**16**
1980	**Average**	**8,597**	**1,617**	5,263	44	5,219	**34**	**-13**	**15**
1981	**Average**	**8,572**	**1,609**	4,396	256	4,141	**83**	**-58**	**5**
1982	**Average**	**8,649**	**1,696**	3,488	165	3,323	**71**	**-59**	**3**
1983	**Average**	**8,688**	**1,714**	3,329	234	3,096	**114**	**--**	**2**
1984	**Average**	**8,879**	**1,722**	3,426	197	3,229	**185**	**--**	**2**
1985	**Average**	**8,971**	**1,825**	3,201	118	3,083	**145**	**--**	**1**
1986	**Average**	**8,680**	**1,867**	4,178	48	4,130	**139**	**--**	**(s)**
1987	January	8,480	2,019	4,385	92	4,293	-5	--	1
	February	8,389	1,853	3,866	44	3,822	382	--	(s)
	March	8,464	1,968	3,779	95	3,684	151	--	1
	April	8,498	1,990	4,132	57	4,076	120	--	(s)
	May	8,336	1,979	4,340	92	4,248	51	--	(s)
	June	8,279	1,930	4,807	64	4,743	434	--	(s)
	July	8,251	1,910	5,295	76	5,218	32	--	(s)
	August	8,210	1,908	5,510	63	5,447	177	--	(s)
	September	8,205	1,874	5,110	64	5,047	217	--	(s)
	October	8,364	1,986	5,142	57	5,085	-3	--	(s)
	November	8,397	2,068	5,013	97	4,916	115	--	(s)
	December	8,318	2,043	4,640	68	4,572	101	--	(s)
	Average	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**--**	**(s)**
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**--**	**(s)**
1989	January	E 7,913	E 1,958	5,521	65	5,456	209	--	(s)
	February	E 7,830	E 1,962	5,263	84	5,178	1	--	(s)
	March	E 7,610	E 1,686	4,993	75	4,917	431	--	(s)
	April	E 7,747	E 1,890	5,745	59	5,685	120	--	(s)
	May	E 7,807	E 1,973	5,665	77	5,588	338	--	(s)
	June	E 7,660	E 1,861	5,915	55	5,860	156	--	(s)
	July	E 7,474	E 1,725	6,200	75	6,125	375	--	(s)
	August	E 7,589	E 1,867	6,521	32	6,489	242	--	(s)
	September*	RE 7,563	RE 1,875	R 6,031	59	R 5,973	R 105	--	R 1
	October**	PE 7,644	PE 1,931	E *6,273*	E *33*	E *6,240*	E *-236*	--	E (s)
	10-Mo. Average	PE **7,683**	PE **1,872**	E **5,817**	E **61**	E **5,756**	E **176**	**--**	E **(s)**
1988	**10-Mo. Average**	**8,171**	**2,018**	**5,098**	**50**	**5,048**	**190**	**--**	**(s)**
1987	**10-Mo. Average**	**8,347**	**1,943**	**4,644**	**71**	**4,573**	**152**	**--**	**(s)**

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[a] Includes lease condensate.

[b] Stocks are totals as of end of period.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Strategic Petroleum Reserve.

[e] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels. See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	**--**	**-11**	**12,431**	**2**	**--**	242	--	242
1974	**Average**	**--**	**62**	**12,133**	**3**	**--**	265	--	265
1975	**Average**	**--**	**17**	**12,442**	**6**	**--**	271	--	271
1976	**Average**	**--**	**39**	**13,416**	**8**	**--**	285	--	285
1977	**Average**	**20**	**150**	**14,602**	**50**	**--**	348	7	340
1978	**Average**	**163**	**-84**	**14,739**	**158**	**--**	376	67	309
1979	**Average**	**67**	**81**	**14,648**	**235**	**--**	430	91	339
1980	**Average**	**45**	**52**	**13,481**	**287**	**--**	[g] 466	108	[g] 358
1981	**Average**	**336**	[g] **-46**	**12,470**	**228**	**--**	594	230	363
1982	**Average**	**174**	**-38**	**11,774**	**236**	**--**	[g] 644	294	[g] 350
1983	**Average**	**234**	[g] **-20**	**11,685**	**164**	**66**	723	379	344
1984	**Average**	**195**	**4**	**12,044**	**181**	**64**	796	451	345
1985	**Average**	**117**	**-67**	**12,002**	**204**	**60**	814	493	321
1986	**Average**	**50**	**28**	**12,716**	**154**	**49**	843	512	331
1987	January	108	58	12,570	84	41	848	515	333
	February	64	-42	12,290	284	41	849	517	332
	March	106	19	12,081	150	39	852	520	332
	April	67	-116	12,512	247	41	851	522	329
	May	101	-137	12,653	69	42	850	525	325
	June	69	97	13,202	116	36	855	527	328
	July	91	-124	13,430	149	32	854	530	324
	August	63	281	13,380	141	31	864	532	332
	September	64	157	13,168	116	28	871	534	337
	October	57	604	12,733	84	25	892	536	356
	November	97	258	12,981	164	25	902	539	364
	December	68	-472	13,212	220	31	890	541	349
	Average	**80**	**49**	**12,854**	**151**	**34**	--	--	--
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	26	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	**52**	**-51**	**13,246**	**155**	**40**	--	--	--
1989	January	65	66	13,330	136	47	895	562	333
	February	85	-21	12,774	208	48	897	564	333
	March	75	-206	12,963	156	45	893	566	326
	April	60	437	12,953	139	23	907	568	339
	May	77	189	13,395	131	19	916	570	345
	June	44	-474	13,896	243	20	903	572	331
	July	86	32	13,843	69	19	906	574	332
	August	32	284	13,858	162	17	916	575	341
	September*	R 59	R -194	R 13,784	R 32	R 18	R 912	577	R 335
	October**	E *33*	E *178*	E *13,347*	E 105	E 18	E *919*	E *578*	E *341*
	10-Mo. Average	E **61**	E **31**	E **13,419**	E **138**	E **27**	--	--	--
1988	**10-Mo. Average**	**50**	**-31**	**13,242**	**158**	**39**	--	--	--
1987	**10-Mo. Average**	**79**	**81**	**12,805**	**142**	**35**	--	--	--

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Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	**Average**	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974	**Average**	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975	**Average**	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976	**Average**	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977	**Average**	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978	**Average**	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979	**Average**	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980	**Average**	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981	**Average**	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982	**Average**	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983	**Average**	**240**	**0**	**337**	**30**	**338**	**48**	**302**	**422**	**144**	**1,862**	**632**
1984	**Average**	**323**	**1**	**325**	**117**	**343**	**10**	**216**	**548**	**166**	**2,049**	**819**
1985	**Average**	**187**	**4**	**168**	**45**	**314**	**27**	**293**	**605**	**187**	**1,830**	**472**
1986	**Average**	**271**	**0**	**685**	**44**	**318**	**19**	**440**	**793**	**265**	**2,837**	**1,162**
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	**295**	**0**	**751**	**61**	**285**	**98**	**535**	**804**	**231**	**3,060**	**1,274**
1988	January	333	0	849	61	179	[f] 1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	**300**	**0**	**1,064**	**29**	**205**	(s)	**618**	**794**	**510**	**3,520**	**1,839**
1989	January	315	0	1,450	59	211	0	746	916	429	4,126	2,200
	February	310	0	1,290	17	292	0	542	767	593	3,812	2,126
	March	272	0	1,108	64	167	0	702	911	454	3,678	1,789
	April	235	0	1,226	14	128	0	750	830	743	3,926	2,030
	May	272	0	1,155	61	264	0	754	853	630	3,990	1,977
	June	205	0	1,240	17	138	0	864	777	841	4,082	2,140
	July	256	0	1,182	0	113	0	1,085	794	992	4,421	2,301
	August	216	0	1,316	44	100	0	922	834	1,052	4,483	2,444
	September	256	0	1,109	20	113	0	897	902	957	4,253	2,195
	9-Mo. Average	**260**	**0**	**1,230**	**33**	**169**	**0**	**810**	**843**	**744**	**4,089**	**2,134**
1988	**9-Mo. Average**	**293**	**0**	**1,027**	**34**	**195**	(s)	**619**	**812**	**483**	**3,465**	**1,778**
1987	**9-Mo. Average**	**281**	**0**	**716**	**54**	**298**	**115**	**520**	**815**	**194**	**2,993**	**1,186**

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	**Average**	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	**Average**	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	**Average**	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	**Average**	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	**Average**	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	**Average**	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	**Average**	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	**Average**	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	**Average**	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	**Average**	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	**Average**	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	**Average**	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	**Average**	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	**Average**	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	594	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	936	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	32	999	747	36	97	315	22	242	1,392	3,882	7,402
1989	January	55	995	807	59	86	207	30	415	1,261	3,914	8,040
	February	24	991	756	44	92	221	24	368	1,577	4,097	7,909
	March	38	951	670	52	82	157	38	324	1,402	3,715	7,392
	April	55	853	1,002	14	114	182	24	405	1,458	4,108	8,034
	May	27	887	792	22	68	210	46	379	1,277	3,707	7,697
	June	28	900	678	23	143	190	32	363	1,431	3,788	7,869
	July	32	831	758	49	89	322	39	331	1,452	3,902	8,324
	August	19	896	801	43	101	367	21	239	1,510	3,997	8,481
	September	8	939	714	35	95	191	33	190	1,489	3,694	7,947
	9-Mo. Average	32	915	775	38	97	228	32	335	1,427	3,878	7,967
1988	**9-Mo. Average**	34	992	744	33	96	311	23	223	1,362	3,818	7,283
1987	**9-Mo. Average**	42	836	660	32	112	347	22	273	1,255	3,580	6,573

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

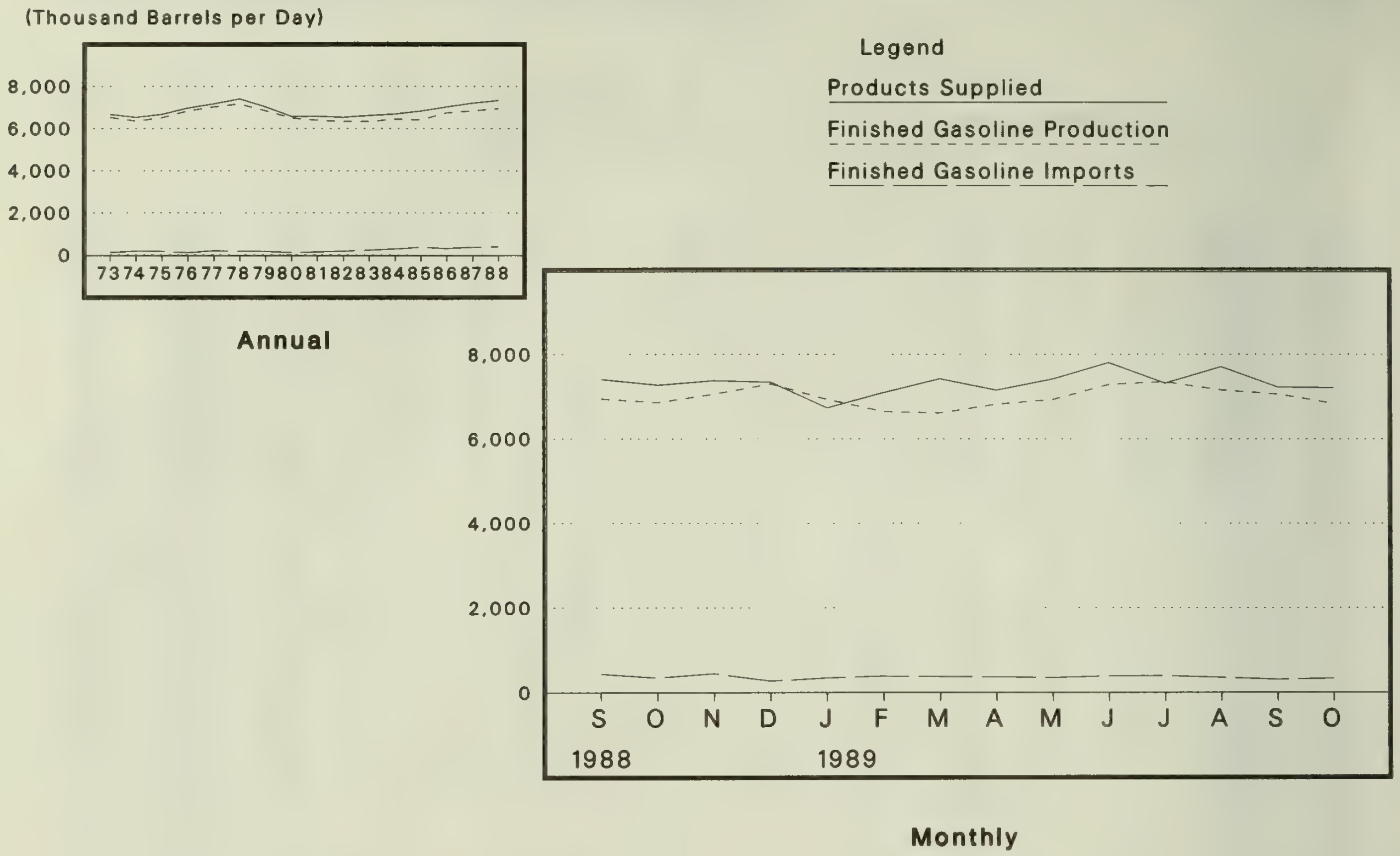
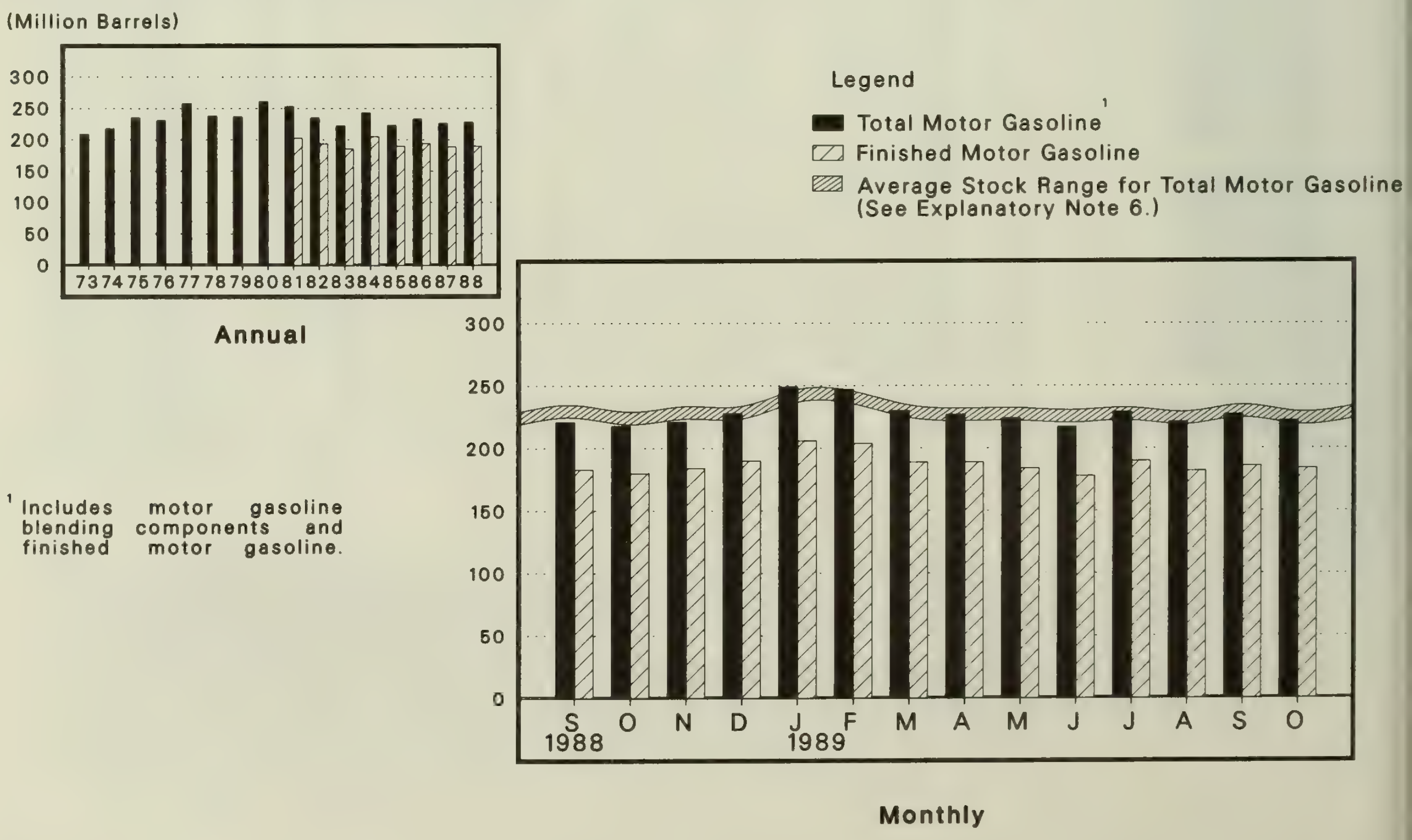


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	**6,535**	**134**	**-9**	**4**	6,674	--	--	209	--
1974	**Average**	**6,360**	**204**	**24**	**2**	6,537	--	--	[f]218	--
1975	**Average**	**6,520**	**184**	**[f]28**	**2**	6,675	--	--	235	--
1976	**Average**	**6,841**	**131**	**-10**	**3**	6,978	--	--	231	--
1977	**Average**	**7,033**	**217**	**72**	**2**	7,177	1,976	27.5	258	--
1978	**Average**	**7,169**	**190**	**-54**	**1**	7,412	2,521	34.0	238	--
1979	**Average**	**6,852**	**181**	**-2**	**(s)**	7,034	2,798	39.8	237	--
1980	**Average**	**6,506**	**140**	**66**	**1**	6,579	3,067	46.6	[f]261	--
1981	**Average[g]**	**6,405**	**157**	**[f]-28**	**2**	6,588	3,264	49.5	253	--
1982	**Average**	**6,338**	**197**	**-25**	**20**	6,539	3,409	52.1	[f]235	--
1983	**Average**	**6,340**	**247**	**[f]-45**	**10**	6,622	3,647	55.1	222	186
1984	**Average**	**6,453**	**299**	**54**	**5**	6,693	3,987	59.6	243	205
1985	**Average**	**6,419**	**381**	**-41**	**10**	6,831	4,406	64.5	223	190
1986	**Average**	**6,752**	**326**	**11**	**33**	7,034	4,854	69.0	233	194
1987	January	6,714	393	528	44	6,535	4,822	73.8	251	211
	February	6,365	309	-144	22	6,796	5,068	74.6	250	207
	March	6,569	364	-51	20	6,964	5,193	74.6	248	205
	April	6,850	374	-133	42	7,314	5,405	73.9	242	201
	May	6,991	354	-164	48	7,460	5,569	74.7	235	196
	June	7,089	385	-111	46	7,539	5,678	75.3	230	193
	July	7,043	452	-119	33	7,581	5,740	75.7	226	189
	August	6,933	396	-29	19	7,338	5,656	77.1	226	188
	September	6,921	421	107	30	7,205	5,536	76.8	230	191
	October	6,668	356	-302	21	7,305	5,636	77.1	218	182
	November	6,907	484	208	32	7,151	5,589	78.2	225	188
	December	7,015	320	24	59	7,251	5,715	78.8	226	189
	Average	**6,841**	**384**	**-15**	**35**	**7,206**	**5,470**	**75.9**	--	--
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,983	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,956**	**405**	**3**	**22**	**7,336**	**5,995**	**81.7**	--	--
1989	January	6,935	349	519	33	6,732	5,753	85.4	249	206
	February	6,648	392	-79	24	7,095	6,119	86.3	247	204
	March	6,615	381	-469	43	7,421	6,381	86.0	230	189
	April	6,820	371	-5	46	7,150	6,238	87.2	227	189
	May	6,931	356	-160	31	7,416	6,486	87.5	224	184
	June	7,289	391	-184	60	7,803	6,886	88.3	217	178
	July	7,355	398	380	57	7,316	6,518	89.1	229	190
	August	7,159	358	-251	58	7,709	6,917	89.7	221	182
	September*	R 7,066	R 312	R 121	R 31	R 7,225	R 6,428	R 89.0	227	R 186
	October**	E *6,842*	E *339*	E *-90*	E 57	E *7,214*	E *6,588*	E *91.3*	E *222*	E *184*
	10-Mo. Average	E **6,968**	E **364**	E **-21**	E **44**	E **7,309**	E **6,434**	E **88.0**	--	--
1988	**10-Mo. Average**	**6,910**	**414**	**-28**	**20**	**7,332**	**5,957**	**81.2**	--	--
1987	**10-Mo. Average**	**6,817**	**381**	**-41**	**33**	**7,206**	**5,433**	**75.4**	--	--

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[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

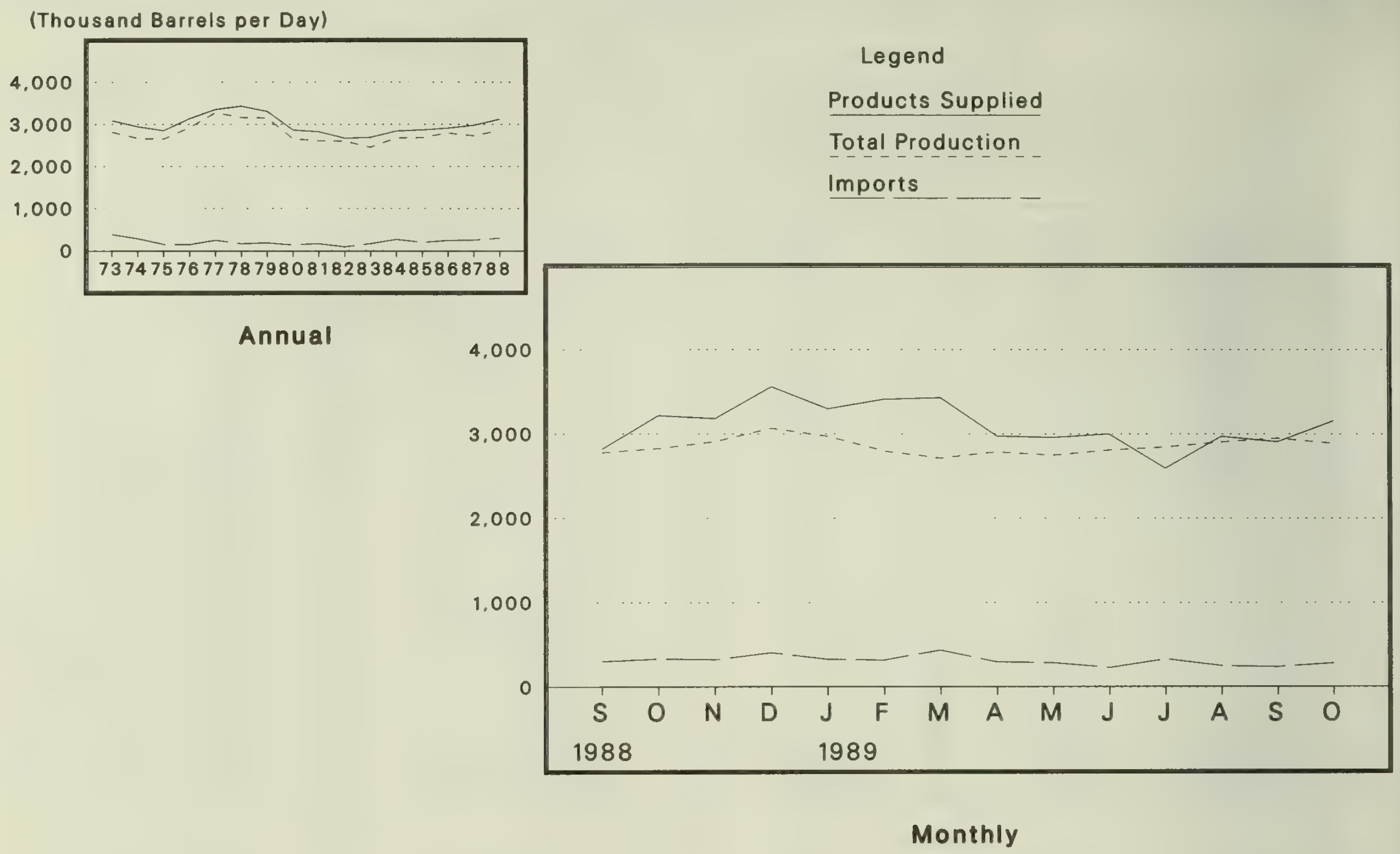

Figure S8. Distillate Fuel Oil Ending Stocks

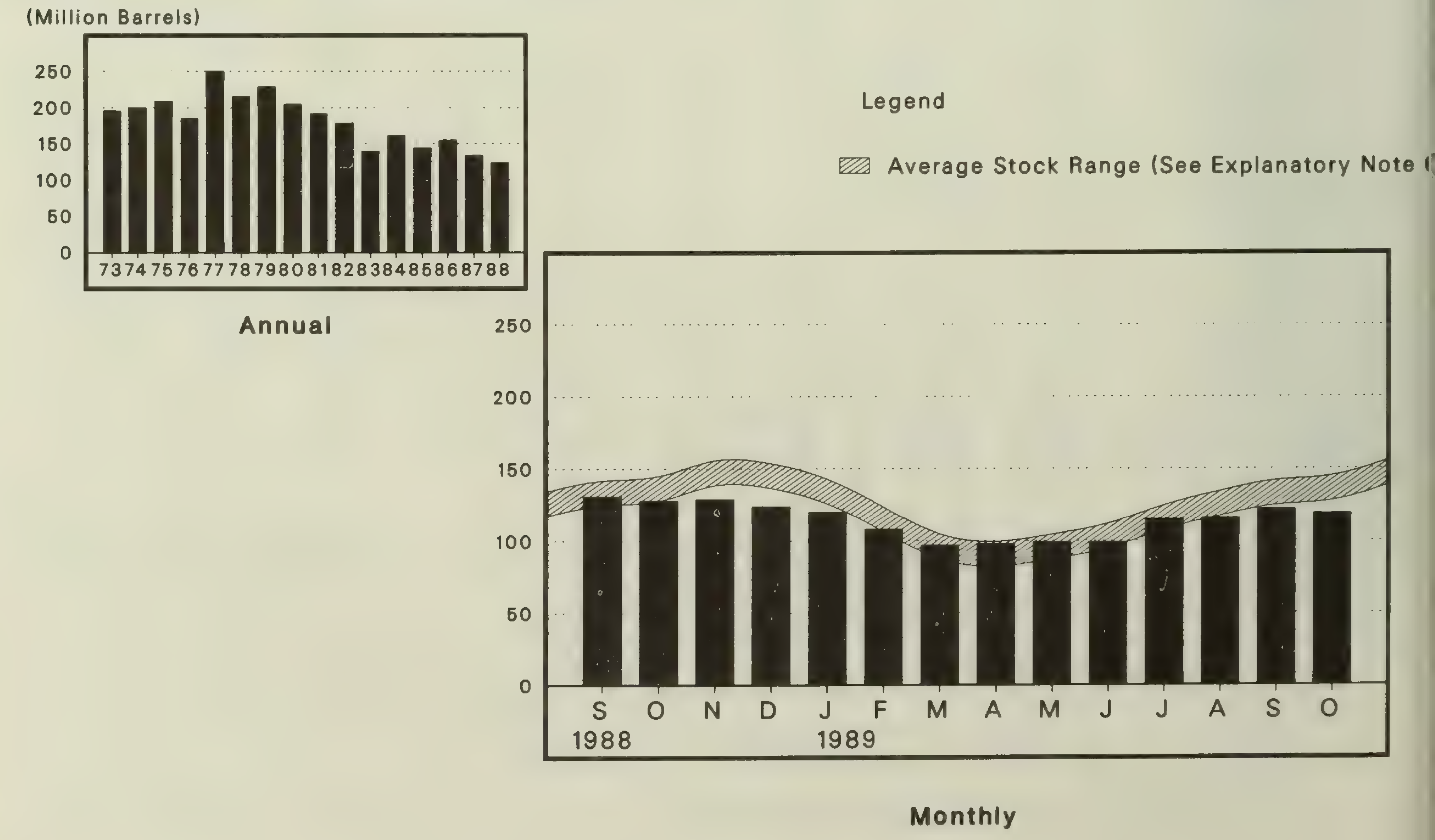

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**
1974	**Average**	**2,669**	**289**	**2**	**9**	**2**	**2,948**	**[d] 200**
1975	**Average**	**2,654**	**155**	**2**	**[d] -40**	**1**	**2,851**	**209**
1976	**Average**	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**
1977	**Average**	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**
1978	**Average**	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**
1979	**Average**	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**
1980	**Average**	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	**[d] 205**
1981	**Average[e]**	**2,613**	**173**	**10**	**[d] -38**	**5**	**2,829**	**192**
1982	**Average**	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	**[d] 179**
1983	**Average**	**2,456**	**174**	**--**	**[d] -124**	**64**	**2,690**	**140**
1984	**Average**	**2,681**	**272**	**--**	**57**	**51**	**2,845**	**161**
1985	**Average**	**2,687**	**200**	**--**	**-48**	**67**	**2,868**	**144**
1986	**Average**	**2,798**	**247**	**--**	**31**	**100**	**2,914**	**155**
1987	January	2,759	222	--	-444	115	3,310	141
	February	2,556	253	--	-629	93	3,345	124
	March	2,421	297	--	-464	67	3,116	109
	April	2,553	192	--	-300	53	2,991	100
	May	2,563	203	--	31	51	2,684	101
	June	2,689	265	--	104	61	2,790	104
	July	2,700	381	--	329	38	2,713	115
	August	2,706	222	--	327	47	2,553	125
	September	2,748	222	--	68	64	2,838	127
	October	2,780	237	--	-187	53	3,151	121
	November	3,035	187	--	234	56	2,932	128
	December	3,242	378	--	209	92	3,318	134
	Average	**2,731**	**255**	**--**	**-56**	**66**	**2,976**	**--**
1988	January	3,010	424	--	-206	82	3,558	128
	February	2,667	383	--	-614	107	3,557	110
	March	2,706	247	--	-660	74	3,539	90
	April	2,867	210	--	171	42	2,864	95
	May	2,936	253	--	320	74	2,795	105
	June	2,893	222	--	185	76	2,854	110
	July	2,784	222	--	308	58	2,640	120
	August	2,848	279	--	185	70	2,873	126
	September	2,778	307	--	192	72	2,821	131
	October	2,827	336	--	-103	48	3,218	128
	November	2,909	327	--	19	34	3,183	129
	December	3,068	409	--	-171	87	3,560	124
	Average	**2,859**	**302**	**--**	**-30**	**69**	**3,122**	**--**
1989	January	2,973	331	--	-103	110	3,296	120
	February	2,798	322	--	-455	164	3,411	108
	March	2,714	439	--	-352	76	3,429	97
	April	2,788	299	--	58	56	2,973	98
	May	2,748	290	--	30	51	2,957	99
	June	2,808	233	--	4	39	2,998	99
	July	2,846	335	--	502	89	2,592	115
	August	2,905	254	--	35	154	2,970	116
	September*	R 2,950	R 243	--	R 206	R 81	R 2,906	122
	October**	E *2,890*	E *285*	--	E *-94*	E *114*	E *3,154*	E *119*
	10-Mo. Average	E **2,842**	E **303**	**--**	E **-14**	E **93**	E **3,066**	--
1988	**10-Mo. Average**	**2,833**	**288**	**--**	**-20**	**70**	**3,071**	**--**
1987	**10-Mo. Average**	**2,648**	**249**	**--**	**-112**	**64**	**2,946**	**--**

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

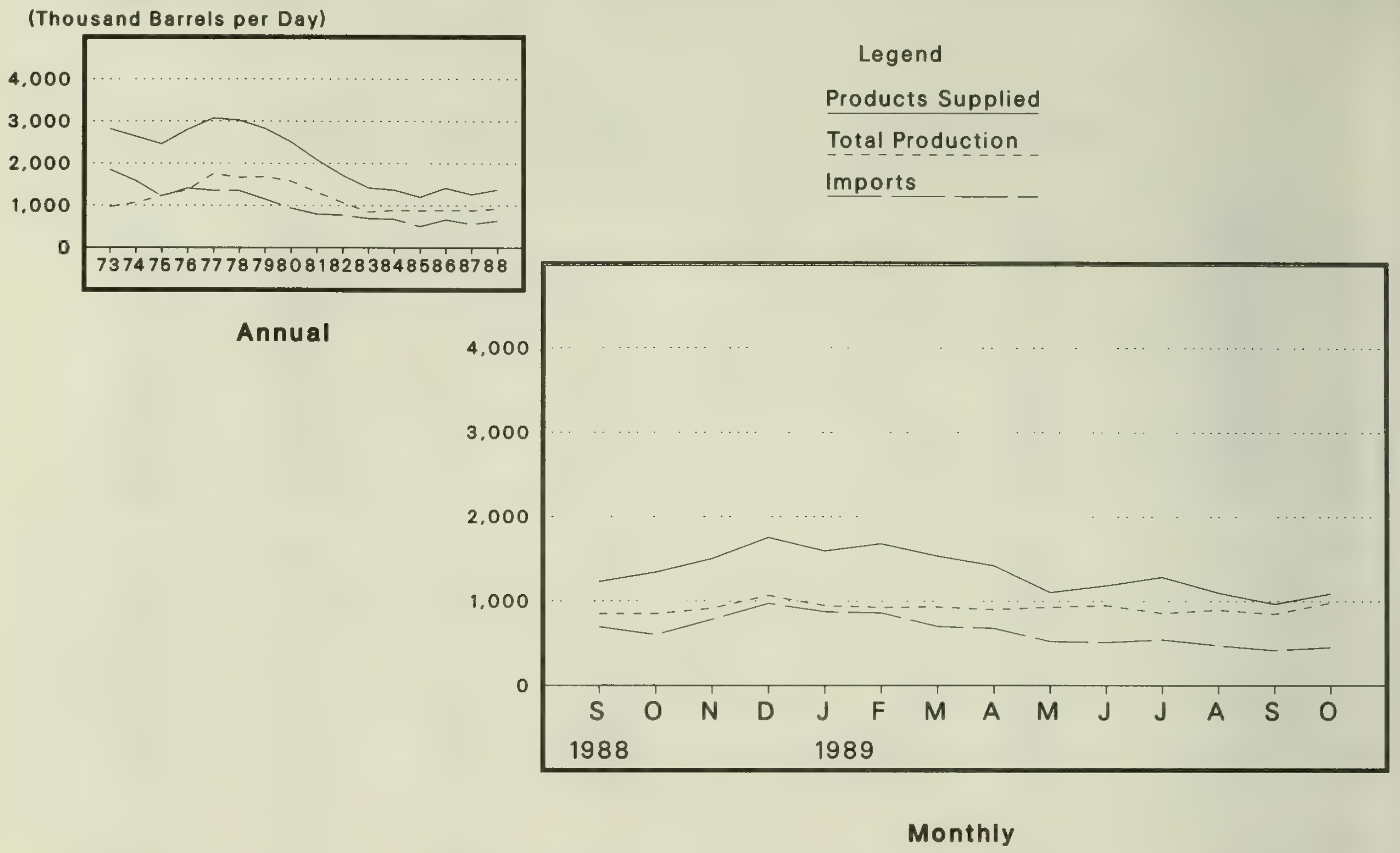

Figure S10. Residual Fuel Oil Ending Stocks

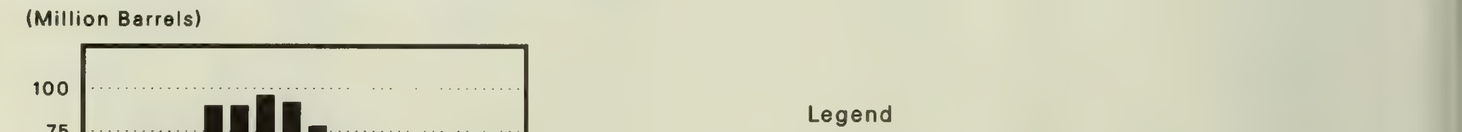

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**971**	**1,853**	**17**	**-5**	**23**	**2,822**	**53**
1974	**Average**	**1,070**	**1,587**	**13**	**17**	**14**	**2,639**	[d] **60**
1975	**Average**	**1,235**	**1,223**	**15**	[d] **-2**	**15**	**2,462**	**74**
1976	**Average**	**1,377**	**1,413**	**17**	**-5**	**12**	**2,801**	**72**
1977	**Average**	**1,754**	**1,359**	**13**	**48**	**6**	**3,071**	**90**
1978	**Average**	**1,667**	**1,355**	**13**	**1**	**13**	**3,023**	**90**
1979	**Average**	**1,687**	**1,151**	**12**	**15**	**9**	**2,826**	**96**
1980	**Average**	**1,580**	**939**	**12**	**-10**	**33**	**2,508**	[d] **92**
1981	**Average**[e]	**1,321**	**800**	**48**	[d] **-37**	**118**	**2,088**	**78**
1982	**Average**	**1,070**	**776**	**48**	**-32**	**209**	**1,716**	[d] **66**
1983	**Average**	**852**	**699**	**--**	[d] **-55**	**185**	**1,421**	**49**
1984	**Average**	**891**	**681**	**--**	**12**	**190**	**1,369**	**53**
1985	**Average**	**882**	**510**	**--**	**-7**	**197**	**1,202**	**50**
1986	**Average**	**889**	**669**	**--**	**-8**	**147**	**1,418**	**47**
1987	January	920	701	--	-81	198	1,504	45
	February	825	668	--	-243	221	1,515	38
	March	863	559	--	38	150	1,234	39
	April	831	476	--	-114	239	1,182	36
	May	813	505	--	145	144	1,029	40
	June	864	481	--	33	105	1,207	41
	July	901	721	--	108	175	1,339	45
	August	882	512	--	32	185	1,176	46
	September	904	526	--	-42	177	1,296	44
	October	887	414	--	39	194	1,069	46
	November	928	568	--	145	146	1,205	50
	December	1,001	650	--	-83	300	1,434	47
	Average	**885**	**565**	**--**	**(s)**	**186**	**1,264**	**--**
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	**926**	**644**	**--**	**-8**	**200**	**1,378**	**--**
1989	January	948	877	--	78	151	1,596	47
	February	929	863	--	-35	146	1,681	46
	March	936	703	--	-116	220	1,535	42
	April	903	681	--	-74	236	1,421	40
	May	931	526	--	77	276	1,105	43
	June	951	515	--	73	208	1,184	45
	July	860	546	--	-59	176	1,287	43
	August	899	478	--	50	225	1,102	45
	September*	R 852	R 421	--	R 167	R 137	R 969	R 50
	October**	E *986*	E *456*	--	E *153*	E 195	E *1,094*	E *50*
	10-Mo. Average	E **920**	E **605**	**--**	E **32**	E **198**	E **1,295**	--
1988	**10-Mo. Average**	**912**	**597**	**--**	**-16**	**198**	**1,327**	**--**
1987	**10-Mo. Average**	**869**	**556**	**--**	**-6**	**178**	**1,253**	**--**

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

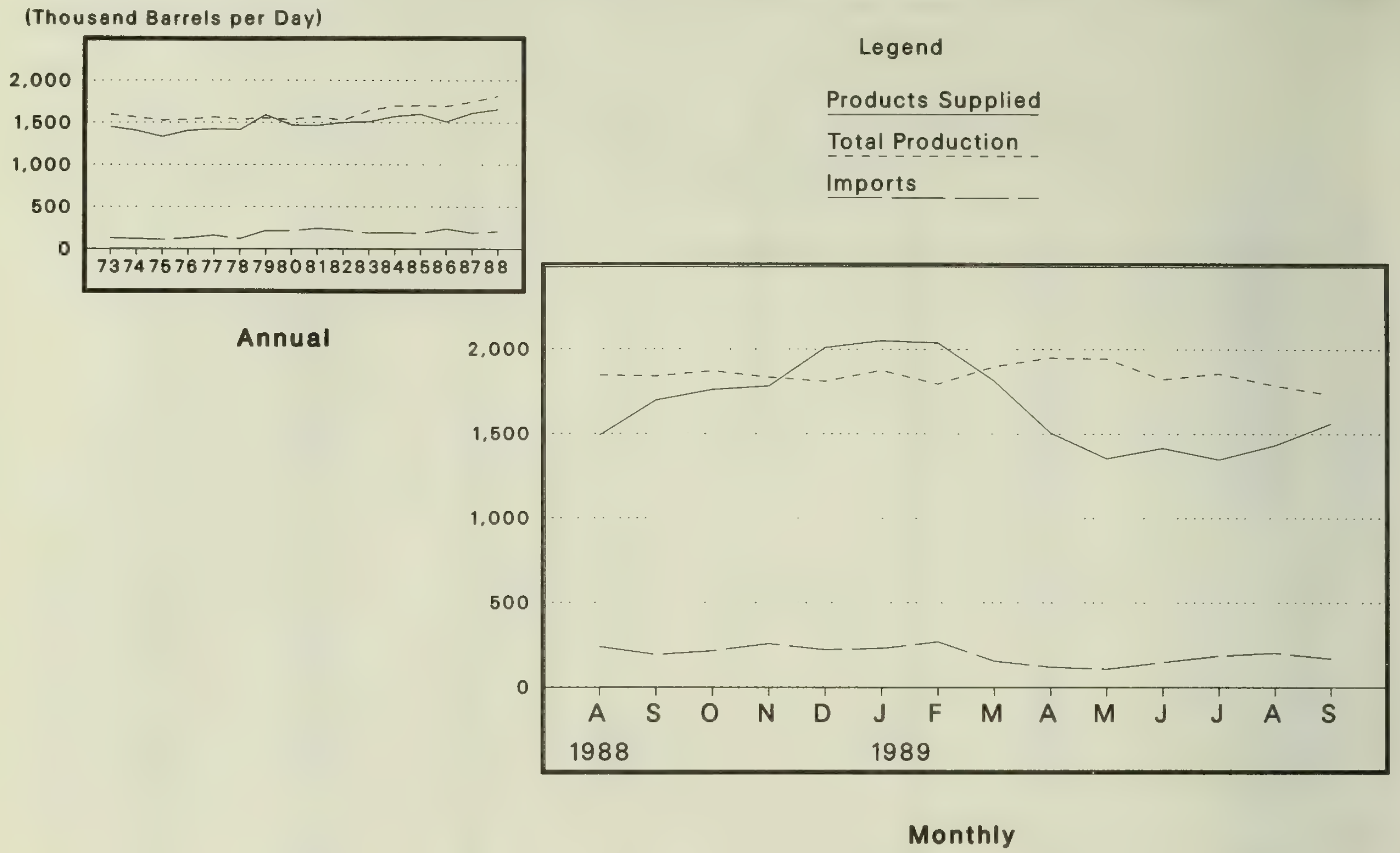

Figure S12. Liquefied Petroleum Gases Ending Stocks

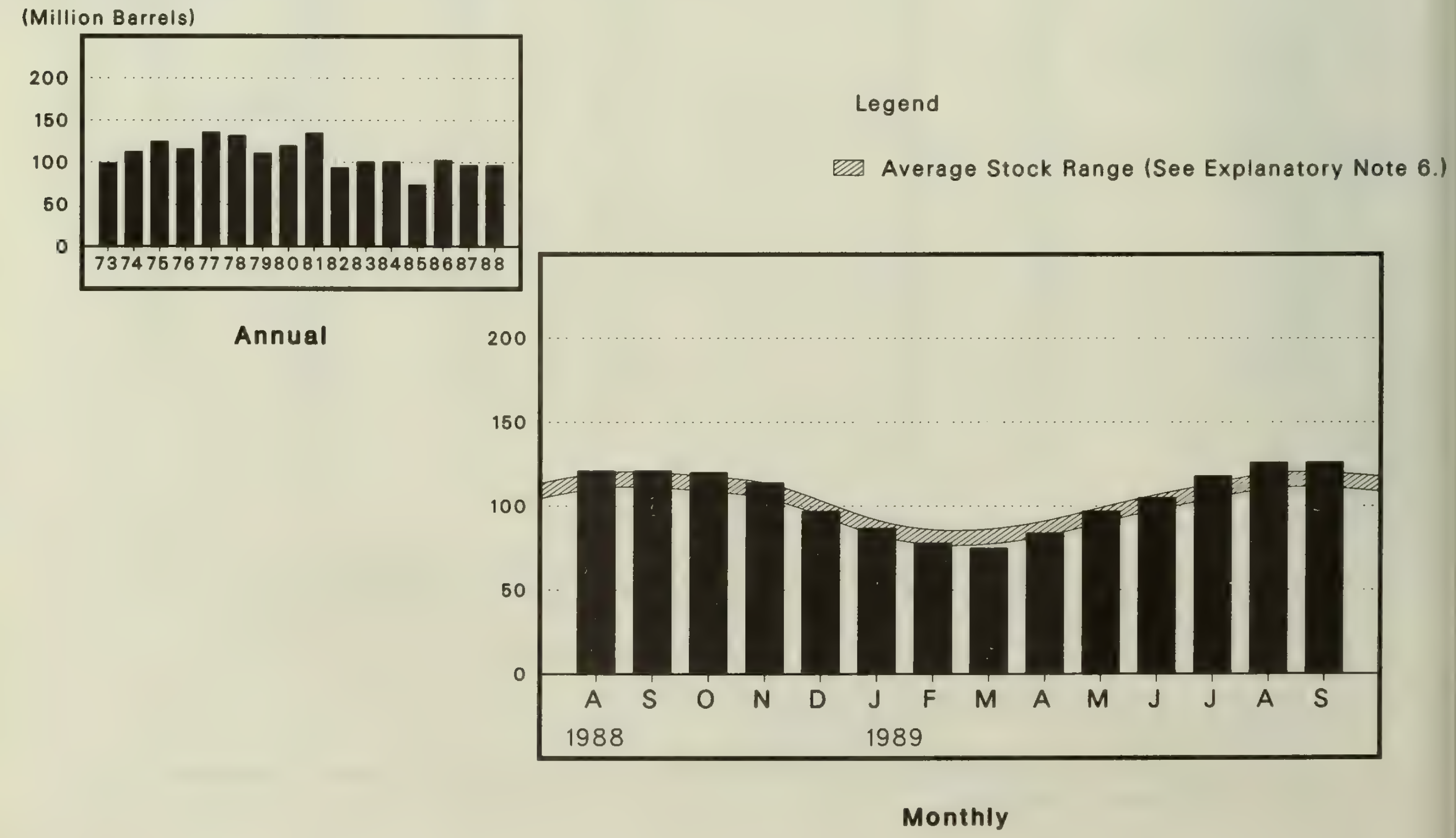

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**1,600**	**132**	**35**	**220**	**27**	**1,449**	99
1974	**Average**	**1,565**	**123**	**38**	**220**	**25**	**1,406**	[d] 113
1975	**Average**	**1,527**	**112**	**[d] 35**	**246**	**26**	**1,333**	125
1976	**Average**	**1,535**	**130**	**-24**	**260**	**25**	**1,404**	116
1977	**Average**	**1,566**	**161**	**55**	**233**	**18**	**1,422**	136
1978	**Average**	**1,537**	**123**	**-12**	**239**	**20**	**1,413**	132
1979	**Average**	**1,556**	**217**	**-70**	**236**	**15**	**1,592**	111
1980	**Average**	**1,535**	**216**	**27**	**233**	**21**	**1,469**	[d] 120
1981	**Average**	**1,571**	**244**	**[d] 18**	**289**	**42**	**1,466**	135
1982	**Average**	**1,528**	**226**	**-111**	**300**	**65**	**1,499**	[d] 94
1983	**Average**	**1,642**	**190**	**[d] -4**	**253**	**73**	**1,509**	[d] 101
1984	**Average**	**1,697**	**195**	**[d] -19**	**291**	**48**	**1,572**	101
1985	**Average**	**1,704**	**187**	**-75**	**304**	**62**	**1,599**	74
1986	**Average**	**1,695**	**242**	**80**	**302**	**42**	**1,512**	103
1987	January	1,751	183	-500	419	43	1,971	87
	February	1,762	201	-205	341	38	1,789	81
	March	1,761	132	10	282	52	1,550	82
	April	1,775	149	121	274	36	1,493	85
	May	1,732	142	283	269	34	1,288	94
	June	1,732	119	175	255	22	1,400	99
	July	1,764	190	145	244	30	1,534	104
	August	1,717	198	259	252	33	1,372	112
	September	1,736	288	81	266	56	1,622	114
	October	1,736	233	-59	294	23	1,711	113
	November	1,763	233	-129	356	35	1,735	109
	December	1,753	214	-372	395	56	1,887	97
	Average	**1,748**	**190**	**-15**	**304**	**38**	**1,612**	--
1988	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	**1,817**	**209**	**1**	**321**	**49**	**1,656**	--
1989	January	1,876	230	-385	421	19	2,051	87
	February	1,795	269	-337	331	31	2,038	78
	March	1,899	155	-80	278	43	1,813	75
	April	1,950	121	292	245	27	1,506	84
	May	1,945	109	431	226	43	1,354	97
	June	1,823	149	266	255	35	1,416	105
	July	1,858	186	405	247	45	1,348	118
	August	1,787	204	273	245	40	1,432	126
	September*	1,734	169	8	303	31	1,562	126
	9-Mo. Average	**1,853**	**176**	**101**	**283**	**35**	**1,610**	--
1988	**9-Mo. Average**	**1,810**	**202**	**88**	**293**	**41**	**1,590**	--
1987	**9-Mo. Average**	**1,748**	**178**	**43**	**289**	**38**	**1,556**	--

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

	Supply		Disposition				
	Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[c]
	Thousand Barrels per Day						Million Barrels
1973 Average	**3,693**	**502**	**9**	**750**	**166**	**3,270**	**208**
1974 Average	**3,558**	**432**	**28**	**665**	**174**	**3,123**	[d] **218**
1975 Average	**3,418**	**277**	[d] **-4**	**537**	**160**	**3,002**	**219**
1976 Average	**3,643**	**206**	**5**	**524**	**175**	**3,145**	**220**
1977 Average	**3,912**	**205**	**27**	**514**	**165**	**3,410**	**230**
1978 Average	**4,046**	**166**	**-14**	**492**	**167**	**3,568**	**225**
1979 Average	**4,153**	**195**	**37**	**352**	**209**	**3,749**	**238**
1980 Average	**3,956**	**210**	**23**	**311**	**198**	**3,634**	[d] **247**
1981 Average	**3,739**	**226**	[d] **-46**	**723**	**199**	**3,088**	**282**
1982 Average	**3,453**	**334**	**-80**	**787**	**211**	**2,869**	[d] **253**
1983 Average	**3,460**	**411**	[d] **-6**	**712**	**242**	**2,923**	[d] **256**
1984 Average	**3,632**	**565**	[d] **-23**	**791**	**245**	**3,183**	**240**
1985 Average	**3,721**	**588**	**17**	**886**	**240**	**3,166**	**246**
1986 Average	**3,997**	**561**	**10**	**888**	**308**	**3,353**	**250**
1987 January	3,852	469	121	659	219	3,323	254
February	3,796	687	389	352	320	3,422	265
March	3,766	663	128	757	281	3,262	269
April	3,933	589	-107	872	254	3,502	266
May	4,049	529	-178	913	320	3,523	260
June	4,203	712	-158	896	320	3,857	255
July	4,363	550	-91	835	256	3,913	253
August	4,340	616	148	693	238	3,876	257
September	4,350	611	24	903	353	3,681	258
October	4,223	686	-14	971	272	3,680	258
November	4,010	583	20	975	305	3,294	258
December	4,050	633	-261	1,091	330	3,523	250
Average	**4,080**	**610**	**-1**	**829**	**289**	**3,572**	--
1988 January	3,942	706	136	812	354	3,347	254
February	3,905	680	31	753	318	3,484	255
March	4,147	666	282	687	328	3,515	264
April	4,010	794	87	851	288	3,577	266
May	4,071	843	335	501	274	3,803	277
June	4,265	787	-43	777	379	3,939	276
July	4,315	781	21	831	329	3,915	276
August	4,413	701	-199	796	302	4,215	270
September	4,245	651	-159	850	323	3,882	265
October	4,163	771	-40	762	268	3,944	264
November	4,068	823	43	818	303	3,728	265
December	4,155	613	-429	1,153	392	3,653	252
Average	**4,143**	**735**	**6**	**799**	**321**	**3,751**	--
1989 January	4,185	732	402	714	311	3,489	265
February	3,924	802	201	731	302	3,492	270
March	4,028	722	112	652	321	3,664	274
April	3,906	817	114	815	306	3,489	277
May	4,085	750	212	727	260	3,637	284
June	4,334	668	-220	866	389	3,967	277
July	4,436	658	-50	951	344	3,849	276
August	4,410	667	-216	891	328	4,075	269
September*	4,401	770	140	733	343	3,954	273
9-Mo. Average	**4,192**	**731**	**77**	**787**	**323**	**3,737**	--
1988 9-Mo. Average	**4,147**	**735**	**56**	**761**	**322**	**3,743**	--
1987 9-Mo. Average	**4,075**	**601**	**28**	**768**	**284**	**3,596**	--

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports*, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1988: EIA, *Petroleum Supply Annual.*

4. January 1989 through September 1989: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 5.)

5. October 1989: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)

6. January 1989 through October 1989: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 7).

Detailed Statistics

At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, September 1989

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
(1)	Alaska	E 56,259	E 1,875	E 509,228	E 1,865
(2)	Lower 48 States	E 170,622	E 5,687	E 1,589,305	E 5,822
(3)	**Total U.S.**	**E 226,881**	**E 7,563**	**E 2,098,533**	**E 7,687**
	Net Imports				
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	179,180	5,973	1,556,353	5,701
(5)	SPR Imports	1,756	59	17,615	65
(6)	Exports	961	32	38,558	141
(7)	**Imports (Net Including SPR)**	**179,975**	**5,999**	**1,535,410**	**5,624**
	Other Sources				
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-1,758	-59	-17,616	-65
(9)	Other Stock Change (Withdrawal (+), Addition (-))	5,822	194	-3,786	-14
(10)	Product Supplied and Losses	-570	-19	-7,772	-28
(11)	Unaccounted for[a]	3,160	105	60,895	223
(12)	**Total Other Sources**	**6,654**	**222**	**31,721**	**116**
(13)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**413,510**	**13,784**	**3,665,664**	**13,427**
	Natural Gas Liquids (NGL)				
(14)	Field Production	44,351	1,478	431,832	1,582
(15)	Net Imports[b]	86	3	-4	(s)
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	296	10	-3,114	-11
(17)	**Total NGL Supply**	**44,733**	**1,491**	**428,714**	**1,570**
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Change (Withdrawal (+), Addition (-))	-3,416	-114	-9,750	-36
(19)	Imports	14,561	485	113,808	417
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,908	64	15,334	56
(21)	Refinery Processing Gain[a]	19,240	641	175,134	642
(22)	Crude Oil Product Supplied	548	18	7,714	28
(23)	**Total Other Liquids** (23) = (18) through (22)	**32,841**	**1,095**	**302,240**	**1,107**
(24)	**Total Production of Products** (24) = (13) + (17) + (23)	**491,084**	**16,369**	**4,396,618**	**16,105**
	Net Imports of Refined Products				
(25)	Imports (Gross)	42,799	1,427	485,074	1,777
(26)	Exports	18,677	623	186,004	681
(27)	**Imports (Net)**	**24,122**	**804**	**299,070**	**1,095**
(28)	**Total New Supply of Products** (28) = (24) + (27)	**515,207**	**17,174**	**4,695,688**	**17,200**
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	-16,160	-539	-35,738	-131
(30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	**499,047**	**16,635**	**4,659,950**	**17,069**
(31)	Finished Motor Gasoline	216,765	7,225	1,998,436	7,320
(32)	Distillate Fuel Oil	87,181	2,906	834,372	3,056
(33)	Residual Fuel Oil	29,075	969	359,682	1,318
(34)	Liquefied Petroleum Gases	46,860	1,562	439,583	1,610
(35)	Other[c]	118,618	3,954	1,020,163	3,737
(36)	Crude Oil	548	18	7,714	28
(37)	**Total Products Supplied** (37) = (31) through (36)	**499,047**	**16,635**	**4,659,950**	**17,069**
	Ending Stocks, All Oils				
(38)	Crude Oil (Excluding SPR)	335,036	--	335,036	--
(39)	Strategic Petroleum Reserve	577,131	--	577,131	--
(40)	Finished Motor Gasoline	186,039	--	186,039	--
(41)	Distillate Fuel Oil	122,239	--	122,239	--
(42)	Residual Fuel Oil	49,522	--	49,522	--
(43)	Liquefied Petroleum Gases	126,409	--	126,409	--
(44)	Other[c]	273,222	-	273,222	--
(45)	**Total Stocks** (45) = (38) through (44)	**1,669,598**	**--**	**1,669,598**	**--**

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989
(Thousand Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	Ending Stocks
Crude Oil	E 226,881	--	180,936	3,160	-4,064	22	413,510	961	548	912,167
Natural Gas Liquids and LRGs	**44,351**	**17,004**	**5,182**	--	**-65**	--	**15,071**	**944**	**50,587**	**136,292**
Pentanes Plus	9,325	--	113	--	-296	--	5,981	27	3,726	9,883
Liquefied Petroleum Gases	35,026	17,004	5,069	--	231	--	9,090	918	46,860	126,409
Ethane/Ethylene	12,884	552	240	--	64	--	164	9	13,439	24,532
Propane/Propylene	13,509	11,804	3,334	--	154	--	299	640	27,554	60,536
Normal Butane/Butylene	4,404	4,179	1,235	--	-313	--	3,711	269	6,151	32,110
Isobutane	4,229	469	260	--	326	--	4,916	0	-284	9,231
Other Liquids	**1,908**	--	**14,561**	--	**3,416**	--	**16,015**	**0**	**-2,962**	**148,899**
Other Hydrocarbons/Alcohol	1,908	--	0	--	85	--	1,823	0	0	809
Unfinished Oils	--	--	11,732	--	952	--	14,982	0	-4,202	107,124
Motor Gasoline Blend. Comp.	--	--	2,829	--	2,486	--	-896	0	1,239	40,841
Aviation Gasoline Blend. Comp.	--	--	0	--	-107	--	106	0	1	125
Finished Petroleum Products	--	**446,832**	**37,730**	--	**15,929**	--	--	**17,759**	**450,874**	**472,240**
Finished Motor Gasoline	--	211,974	9,365	--	3,639	--	--	935	216,765	186,039
Leaded	--	22,624	5	--	-1,567	--	--	271	23,925	21,128
Unleaded	--	189,350	9,360	--	5,206	--	--	664	192,840	164,911
Finished Aviation Gasoline	--	957	25	--	173	--	--	0	809	1,947
Jet Fuel	--	43,320	2,843	--	334	--	--	1,019	44,810	48,610
Naphtha-Type	--	6,770	96	--	818	--	--	(s)	6,048	6,819
Kerosene-Type	--	36,550	2,747	--	-484	--	--	1,018	38,763	41,791
Kerosene	--	2,422	21	--	1,052	--	--	64	1,327	7,565
Distillate Fuel Oil	--	88,499	7,289	--	6,182	--	--	2,425	87,181	122,239
Residual Fuel Oil	--	25,573	12,641	--	5,017	--	--	4,122	29,075	49,522
Naphtha for Petro. Feed. Use	--	3,051	2,330	--	75	--	--	255	5,051	2,079
Other Oils for Petro. Feed. Use	--	7,148	1,249	--	-469	--	--	707	8,159	1,913
Special Naphthas	--	1,798	207	--	21	--	--	518	1,466	3,683
Lubricants	--	4,760	203	--	-231	--	--	516	4,678	14,238
Waxes	--	534	31	--	47	--	--	55	463	929
Petroleum Coke	--	16,275	35	--	411	--	--	7,026	8,873	8,622
Asphalt and Road Oil	--	18,215	1,457	--	127	--	--	62	19,483	21,922
Still Gas	--	20,472	0	--	0	--	--	0	20,472	0
Miscellaneous Products	--	1,834	34	--	-449	--	--	56	2,261	2,932
Total	273,140	463,836	238,409	3,160	15,216	22	444,596	19,664	499,047	1,669,598

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

able 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-September 1989

(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
ude Oil	E **2,098,533**	**--**	**1,573,968**	**60,895**	**21,402**	**58**	**3,665,664**	**38,558**	**7,714**	**912,167**
tural Gas Liquids and LRGs	**431,832**	**159,692**	**50,147**	**--**	**30,638**	**--**	**128,066**	**11,575**	**471,392**	**136,292**
Pentanes Plus	85,720	--	2,050	--	3,114	--	50,794	2,054	31,808	9,883
Liquefied Petroleum Gases	346,112	159,692	48,097	--	27,524	--	77,272	9,522	439,583	126,409
Ethane/Ethylene	133,367	3,671	2,249	--	6,509	--	1,348	66	131,364	24,532
Propane/Propylene	129,658	108,449	29,309	--	10,146	--	3,087	6,568	247,615	60,536
Normal Butane/Butylene	42,020	43,394	14,339	--	10,664	--	31,702	2,887	54,500	32,110
Isobutane	41,067	4,178	2,200	--	205	--	41,135	0	6,105	9,231
her Liquids	**15,334**	**--**	**113,808**	**--**	**9,750**	**--**	**164,058**	**0**	**-44,666**	**148,899**
Other Hydrocarbons/Alcohol	15,334	--	0	--	274	--	15,060	0	0	809
Unfinished Oils	--	--	98,580	--	7,311	--	139,192	0	-47,923	107,124
Motor Gasoline Blend. Comp.	--	--	15,228	--	2,290	--	9,703	0	3,235	40,841
Aviation Gasoline Blend. Comp.	--	--	0	--	-125	--	103	0	22	125
nished Petroleum Products	**--**	**3,973,230**	**436,977**	**--**	**8,214**	**--**	**--**	**176,482**	**4,225,511**	**472,240**
Finished Motor Gasoline	--	1,906,208	100,292	--	-3,641	--	--	11,705	1,998,436	186,039
Leaded	--	228,762	1,098	--	-19,001	--	--	2,030	246,831	21,128
Unleaded	--	1,677,446	99,194	--	15,360	--	--	9,675	1,751,605	164,911
Finished Aviation Gasoline	--	7,067	162	--	-171	--	--	0	7,400	1,947
Jet Fuel	--	378,103	28,941	--	4,882	--	--	5,606	396,556	48,610
Naphtha-Type	--	56,297	1,063	--	768	--	--	401	56,191	6,819
Kerosene-Type	--	321,806	27,878	--	4,114	--	--	5,204	340,366	41,791
Kerosene	--	19,124	1,421	--	282	—	--	145	20,118	7,565
Distillate Fuel Oil	--	774,526	83,351	--	-1,230	--	--	24,735	834,372	122,239
Residual Fuel Oil	--	249,008	169,699	--	4,974	--	--	54,051	359,682	49,522
Naphtha for Petro. Feed. Use	--	32,106	21,417	--	49	--	--	1,210	52,264	2,079
Other Oils for Petro. Feed. Use	--	61,419	16,642	--	170	--	--	5,624	72,267	1,913
Special Naphthas	--	17,023	1,975	--	134	--	--	3,107	15,757	3,683
Lubricants	--	45,839	3,152	--	940	--	--	4,803	43,248	14,238
Waxes	--	4,714	440	--	91	--	--	455	4,608	929
Petroleum Coke	--	148,948	258	--	832	--	--	63,591	84,783	8,622
Asphalt and Road Oil	--	121,108	8,638	--	1,105	--	--	1,025	127,616	21,922
Still Gas	--	189,072	0	--	0	--	--	0	189,072	0
Miscellaneous Products	--	18,965	589	--	-203	--	--	426	19,331	2,932
otal	**2,545,699**	**4,132,922**	**2,174,900**	**60,895**	**70,004**	**58**	**3,957,788**	**226,615**	**4,659,950**	**1,669,598**

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values
y approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude
sses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, September 1989

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	**E 7,563**	**--**	**6,031**	**105**	**-135**	**1**	**13,784**	**32**	**18**
Natural Gas Liquids and LRGs	**1,478**	**567**	**173**	**--**	**-2**	**--**	**502**	**31**	**1,686**
Pentanes Plus	311	--	4	--	-10	--	199	1	124
Liquefied Petroleum Gases	1,168	567	169	--	8	--	303	31	1,562
Ethane/Ethylene	429	18	8	--	2	--	5	(s)	448
Propane/Propylene	450	393	111	--	5	--	10	21	918
Normal Butane/Butylene	147	139	41	--	-10	--	124	9	205
Isobutane	141	16	9	--	11	--	164	0	-9
Other Liquids	**64**	**--**	**485**	**--**	**114**	**--**	**534**	**0**	**-99**
Other Hydrocarbons/Alcohol	64	--	0	--	3	--	61	0	0
Unfinished Oils	--	--	391	--	32	--	499	0	-140
Motor Gasoline Blend. Comp.	--	--	94	--	83	--	-30	0	41
Aviation Gasoline Blend. Comp.	--	--	0	--	-4	--	4	0	(s)
Finished Petroleum Products	**--**	**14,894**	**1,258**	**--**	**531**	**--**	**--**	**592**	**15,029**
Finished Motor Gasoline	--	7,066	312	--	121	--	--	31	7,225
Leaded	--	754	(s)	--	-52	--	--	9	798
Unleaded	--	6,312	312	--	174	--	--	22	6,428
Finished Aviation Gasoline	--	32	1	--	6	--	--	0	27
Jet Fuel	--	1,444	95	--	11	--	--	34	1,494
Naphtha-Type	--	226	3	--	27	--	--	(s)	202
Kerosene-Type	--	1,218	92	--	-16	--	--	34	1,292
Kerosene	--	81	1	--	35	--	--	2	44
Distillate Fuel Oil	--	2,950	243	--	206	--	--	81	2,906
Residual Fuel Oil	--	852	421	--	167	--	--	137	969
Naphtha for Petro. Feed. Use	--	102	78	--	3	--	--	8	168
Other Oils for Petro. Feed. Use	--	238	42	--	-16	--	--	24	272
Special Naphthas	--	60	7	--	1	--	--	17	49
Lubricants	--	159	7	--	-8	--	--	17	156
Waxes	--	18	1	--	2	--	--	2	15
Petroleum Coke	--	543	1	--	14	--	--	234	296
Asphalt and Road Oil	--	607	49	--	4	--	--	2	649
Still Gas	--	682	0	--	0	--	--	0	682
Miscellaneous Products	--	61	1	--	-15	--	--	2	75
Total	**9,105**	**15,461**	**7,947**	**105**	**507**	**1**	**14,820**	**655**	**16,635**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,687	--	5,765	223	78	(s)	13,427	141	28
Natural Gas Liquids and LRGs	1,582	585	184	--	112	--	469	42	1,727
Pentanes Plus	314	--	8	--	11	--	186	8	117
Liquefied Petroleum Gases	1,268	585	176	--	101	--	283	35	1,610
Ethane/Ethylene	489	13	8	--	24	--	5	(s)	481
Propane/Propylene	475	397	107	--	37	--	11	24	907
Normal Butane/Butylene	154	159	53	--	39	--	116	11	200
Isobutane	150	15	8	--	1	--	151	0	22
Other Liquids	56	--	417	--	36	--	601	0	-164
Other Hydrocarbons/Alcohol	56	--	0	--	1	--	55	0	0
Unfinished Oils	--	--	361	--	27	--	510	0	-176
Motor Gasoline Blend. Comp.	--	--	56	--	8	--	36	0	12
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	14,554	1,601	--	30	--	--	646	15,478
Finished Motor Gasoline	--	6,982	367	--	-13	--	--	43	7,320
Leaded	--	838	4	--	-70	--	--	7	904
Unleaded	--	6,144	363	--	56	--	--	35	6,416
Finished Aviation Gasoline	--	26	1	--	-1	--	--	0	27
Jet Fuel	--	1,385	106	--	18	--	--	21	1,453
Naphtha-Type	--	206	4	--	3	--	--	1	206
Kerosene-Type	--	1,179	102	--	15	--	--	19	1,247
Kerosene	--	70	5	--	1	--	--	1	74
Distillate Fuel Oil	--	2,837	305	--	-5	--	--	91	3,056
Residual Fuel Oil	--	912	622	--	18	--	--	198	1,318
Naphtha for Petro. Feed. Use	--	118	78	--	(s)	--	--	4	191
Other Oils for Petro. Feed. Use	--	225	61	--	1	--	--	21	265
Special Naphthas	--	62	7	--	(s)	--	--	11	58
Lubricants	--	168	12	--	3	--	--	18	158
Waxes	--	17	2	--	(s)	--	--	2	17
Petroleum Coke	--	546	1	--	3	--	--	233	311
Asphalt and Road Oil	--	444	32	--	4	--	--	4	467
Still Gas	--	693	0	--	0	--	--	0	693
Miscellaneous Products	--	69	2	--	-1	--	--	2	71
Total	9,325	15,139	7,967	223	256	(s)	14,497	830	17,069

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989

(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 1,044	--	38,044	2,274	407	25	0	41,744	0	0	14,661
Natural Gas Liquids and LRGs	869	1,711	542	--	2,725	-200	--	126	43	5,878	6,154
Pentanes Plus	121	--	0	--	0	-8	--	1	4	124	135
Liquefied Petroleum Gases	748	1,711	542	--	2,725	-192	--	125	39	5,754	6,019
Ethane/Ethylene	236	191	0	--	0	6	--	0	8	413	23
Propane/Propylene	331	1,335	505	--	2,699	49	--	0	17	4,804	4,876
Normal Butane/Butylene	134	106	28	--	0	-237	--	47	13	445	1,072
Isobutane	47	79	9	--	26	-10	--	78	0	93	48
Other Liquids	125	--	5,839	--	326	1,808	--	4,841	0	-359	18,570
Other Hydrocarbons/Alcohol	125	--	0	--	0	15	--	110	0	0	250
Unfinished Oils	--	--	3,697	--	56	665	--	4,870	0	-1,782	12,829
Motor Gasoline Blend. Comp.	--	--	2,142	--	270	1,128	--	-139	0	1,423	5,491
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	47,182	30,562	--	67,027	5,189	--	--	667	138,915	157,693
Finished Motor Gasoline	--	20,678	8,391	--	41,854	-1,357	--	--	16	72,264	56,173
Leaded	--	439	2	--	1,381	-495	--	--	1	2,316	2,389
Unleaded	--	20,239	8,389	--	40,473	-862	--	--	15	69,948	53,784
Finished Aviation Gasoline	--	11	2	--	119	-13	--	--	0	145	271
Jet Fuel	--	3,102	1,851	--	9,735	776	--	--	(s)	13,912	12,543
Naphtha-Type	--	528	0	--	431	55	--	--	0	904	1,076
Kerosene-Type	--	2,574	1,851	--	9,304	721	--	--	(s)	13,008	11,467
Kerosene	--	225	21	--	261	707	--	--	8	-208	3,385
Distillate Fuel Oil	--	11,086	6,528	--	12,512	1,747	--	--	16	28,363	50,163
Residual Fuel Oil	--	3,349	11,918	--	572	3,176	--	--	44	12,619	22,272
Petrochemical Feedstocks[e]	--	206	243	--	16	-27	--	--	8	484	335
Special Naphthas	--	140	9	--	215	20	--	--	209	135	1,118
Lubricants	--	582	175	--	1,088	-171	--	--	171	1,845	2,976
Waxes	--	77	21	--	6	-7	--	--	6	105	50
Petroleum Coke	--	1,296	0	--	0	-171	--	--	178	1,289	762
Asphalt and Road Oil	--	4,082	1,373	--	491	789	--	—	1	5,156	6,744
Still Gas	--	2,031	0	--	0	0	--	--	0	2,031	0
Miscellaneous Products	--	317	30	--	158	-280	--	--	12	773	901
Total	2,038	48,893	74,987	2,274	70,485	6,822	0	46,711	710	144,434	197,078

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 34	--	1,164	33	32	-3	(s)	1,266	(s)	0
Natural Gas Liquids and LRGs	27	58	31	--	88	5	--	4	3	192
Pentanes Plus	4	--	4	--	0	(s)	--	1	1	7
Liquefied Petroleum Gases	23	58	27	--	88	5	--	3	2	186
Ethane/Ethylene	7	5	0	--	0	(s)	--	0	(s)	12
Propane/Propylene	11	43	22	--	86	4	--	0	1	156
Normal Butane/Butylene	4	8	5	--	1	1	--	2	1	15
Isobutane	1	1	(s)	--	1	(s)	--	2	0	2
Other Liquids	3	--	165	--	16	5	--	217	0	-38
Other Hydrocarbons/Alcohol	3	--	0	--	0	1	--	2	0	0
Unfinished Oils	--	--	125	--	6	2	--	191	0	-61
Motor Gasoline Blend. Comp.	--	--	40	--	10	2	--	24	0	23
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,498	1,319	--	2,357	28	--	--	21	5,126
Finished Motor Gasoline	--	688	334	--	1,410	-5	--	--	1	2,436
Leaded	--	25	3	--	94	-20	--	--	1	142
Unleaded	--	662	331	--	1,316	15	--	--	(s)	2,294
Finished Aviation Gasoline	--	(s)	(s)	--	5	(s)	--	--	0	6
Jet Fuel	--	84	64	--	332	8	--	--	(s)	473
Naphtha-Type	--	16	0	--	18	(s)	--	--	(s)	34
Kerosene-Type	--	68	64	--	314	7	--	--	(s)	439
Kerosene	--	8	4	--	13	1	--	--	(s)	23
Distillate Fuel Oil	--	347	287	--	519	3	--	--	2	1,147
Residual Fuel Oil	--	120	579	--	16	13	--	--	3	700
Petrochemical Feedstocks[e]	--	9	7	--	-1	(s)	--	--	1	15
Special Naphthas	--	4	(s)	--	8	(s)	--	--	4	8
Lubricants	--	22	10	--	36	(s)	--	--	5	64
Waxes	--	3	1	--	(s)	(s)	--	--	(s)	4
Petroleum Coke	--	42	(s)	--	0	(s)	--	--	4	39
Asphalt and Road Oil	--	93	30	--	15	8	--	--	(s)	129
Still Gas	--	66	0	--	0	0	--	--	0	66
Miscellaneous Products	--	12	2	--	3	1	--	--	(s)	16
Total	64	1,556	2,678	33	2,493	34	(s)	1,487	23	5,280

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 22,542	--	14,022	-103	53,902	-127	0	90,445	45	0	69,214
Natural Gas Liquids and LRGs	**7,725**	**2,860**	**2,569**	--	**-697**	**-675**	--	**3,054**	**388**	**9,690**	**39,796**
Pentanes Plus	1,401	--	30	--	574	373	--	1,083	7	542	3,239
Liquefied Petroleum Gases	6,324	2,860	2,539	--	-1,271	-1,048	--	1,971	382	9,147	36,557
Ethane/Ethylene	1,787	30	240	--	-971	-535	--	0	0	1,621	4,942
Propane/Propylene	2,905	2,809	1,848	--	-653	-858	--	32	228	7,507	19,737
Normal Butane/Butylene	1,040	-11	366	--	-117	253	--	556	154	315	9,184
Isobutane	592	32	85	--	470	92	--	1,383	0	-296	2,694
Other Liquids	**323**	--	**0**	--	**468**	**1,169**	--	**1,318**	**0**	**-1,696**	**27,234**
Other Hydrocarbons/Alcohol	323	--	0	--	0	13	--	310	0	0	130
Unfinished Oils	--	--	0	--	466	-221	--	1,448	0	-761	17,393
Motor Gasoline Blend. Comp.	--	--	0	--	2	1,429	--	-492	0	-935	9,630
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-52	--	52	0	0	81
Finished Petroleum Products	--	**95,706**	**970**	--	**25,245**	**5,031**	--	--	**459**	**116,431**	**114,929**
Finished Motor Gasoline	--	50,215	160	--	15,874	2,785	--	--	3	63,461	53,226
Leaded	--	4,205	0	--	934	27	--	--	1	5,111	7,524
Unleaded	--	46,010	160	--	14,940	2,758	--	--	2	58,350	45,702
Finished Aviation Gasoline	--	98	0	--	143	90	--	--	0	151	516
Jet Fuel	--	5,363	70	--	2,141	-186	--	--	2	7,758	9,783
Naphtha-Type	--	580	70	--	-61	-73	--	--	0	662	943
Kerosene-Type	--	4,783	0	--	2,202	-113	--	--	2	7,096	8,840
Kerosene	--	438	0	--	39	39	--	--	1	437	1,930
Distillate Fuel Oil	--	20,929	497	--	6,378	1,910	--	--	3	25,891	30,907
Residual Fuel Oil	--	1,927	80	--	-133	423	--	--	15	1,437	3,482
Petrochemical Feedstocks[e]	--	1,344	20	--	198	119	--	--	37	1,406	408
Special Naphthas	--	429	63	--	71	-24	--	--	5	582	710
Lubricants	--	786	28	--	327	99	--	--	37	1,005	2,295
Waxes	--	46	6	--	0	-1	--	--	2	51	86
Petroleum Coke	--	3,266	0	--	0	-187	--	--	280	3,173	2,994
Asphalt and Road Oil	--	6,492	42	--	217	-3	--	--	44	6,710	8,293
Still Gas	--	4,119	0	--	0	0	--	--	0	4,119	0
Miscellaneous Products	--	254	4	--	-10	-33	--	--	32	249	299
Total	**30,590**	**98,566**	**17,561**	**-103**	**78,918**	**5,398**	**0**	**94,817**	**892**	**124,424**	**251,173**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 774**	**--**	**441**	**18**	**1,708**	**-9**	**0**	**2,942**	**7**	**0**
Natural Gas Liquids and LRGs	**292**	**97**	**90**	**--**	**27**	**28**	**--**	**108**	**10**	**359**
Pentanes Plus	47	--	1	--	22	3	--	36	1	30
Liquefied Petroleum Gases	245	97	89	--	5	25	--	71	9	329
Ethane/Ethylene	77	1	5	--	-28	3	--	(s)	0	52
Propane/Propylene	108	93	66	--	19	8	--	2	6	270
Normal Butane/Butylene	40	3	15	--	-2	13	--	25	3	16
Isobutane	20	(s)	3	--	15	2	--	45	0	-9
Other Liquids	**7**	**--**	**0**	**--**	**7**	**17**	**--**	**50**	**0**	**-52**
Other Hydrocarbons/Alcohol	7	--	0	--	0	(s)	--	7	0	0
Unfinished Oils	--	--	0	--	8	8	--	22	0	-23
Motor Gasoline Blend. Comp.	--	--	0	--	-1	9	--	20	0	-29
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	**--**	**3,139**	**24**	**--**	**757**	**14**	**--**	**--**	**12**	**3,893**
Finished Motor Gasoline	--	1,688	4	--	477	2	--	--	(s)	2,166
Leaded	--	165	(s)	--	45	-21	--	--	(s)	230
Unleaded	--	1,523	4	--	433	23	--	--	(s)	1,936
Finished Aviation Gasoline	--	3	0	--	3	(s)	--	--	0	6
Jet Fuel	--	192	3	--	89	5	--	--	(s)	279
Naphtha-Type	--	20	3	--	1	(s)	--	--	(s)	24
Kerosene-Type	--	172	0	--	88	5	--	--	(s)	256
Kerosene	--	13	0	--	-2	(s)	--	--	(s)	11
Distillate Fuel Oil	--	672	7	--	179	-1	--	--	(s)	859
Residual Fuel Oil	--	71	5	--	-11	(s)	--	--	(s)	64
Petrochemical Feedstocks[e]	--	42	1	--	3	(s)	--	--	1	44
Special Naphthas	--	15	2	--	4	(s)	--	--	1	20
Lubricants	--	21	1	--	9	(s)	--	--	1	29
Waxes	--	1	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	116	0	--	0	6	--	--	5	105
Asphalt and Road Oil	--	149	1	--	7	2	--	--	3	151
Still Gas	--	143	0	--	0	0	--	--	0	143
Miscellaneous Products	--	12	(s)	--	(s)	(s)	--	--	1	12
Total	**1,073**	**3,235**	**555**	**18**	**2,499**	**51**	**0**	**3,099**	**30**	**4,200**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989

(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	**E 101,397**	**--**	**118,149**	**3,448**	**-40,794**	**-5,367**	**5**	**187,562**	**0**	**0**	**737,082**
Natural Gas Liquids and LRGs	**30,004**	**10,420**	**1,629**	**--**	**-433**	**582**	**--**	**9,402**	**276**	**31,360**	**84,240**
Pentanes Plus	5,843	--	0	--	-343	-619	--	3,820	16	2,283	6,297
Liquefied Petroleum Gases	24,161	10,420	1,629	--	-90	1,201	--	5,582	260	29,077	77,943
Ethane/Ethylene	10,060	279	0	--	1,515	596	--	164	0	11,094	19,436
Propane/Propylene	8,732	6,447	752	--	-1,680	914	--	265	160	12,912	34,445
Normal Butane/Butylene	2,184	3,429	789	--	404	-556	--	2,125	100	5,137	18,275
Isobutane	3,185	265	88	--	-329	247	--	3,028	0	-66	5,787
Other Liquids	**1,093**	**--**	**8,503**	**--**	**-908**	**-342**	**--**	**9,099**	**0**	**-69**	**67,238**
Other Hydrocarbons/Alcohol	1,093	--	0	--	0	35	--	1,058	0	0	300
Unfinished Oils	--	--	7,985	--	-636	-260	--	8,204	0	-595	50,688
Motor Gasoline Blend. Comp.	--	--	518	--	-272	-68	--	-211	0	525	16,212
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-49	--	48	0	1	38
Finished Petroleum Products	**--**	**204,679**	**5,299**	**--**	**-95,032**	**4,972**	**--**	**--**	**9,940**	**100,034**	**134,740**
Finished Motor Gasoline	--	97,895	491	--	-59,316	2,849	--	--	697	35,524	50,189
Leaded	--	8,266	0	--	-2,523	-492	--	--	142	6,093	4,150
Unleaded	--	89,629	491	--	-56,793	3,341	--	--	554	29,432	46,039
Finished Aviation Gasoline	--	556	15	--	-276	79	--	--	0	216	641
Jet Fuel	--	21,674	763	--	-12,774	-128	--	--	913	8,878	18,027
Naphtha-Type	--	3,221	0	--	-626	483	--	--	0	2,112	2,573
Kerosene-Type	--	18,453	763	--	-12,148	-611	--	--	913	6,766	15,454
Kerosene	--	1,583	0	--	-300	213	--	--	53	1,017	2,017
Distillate Fuel Oil	--	39,212	0	--	-19,150	1,756	--	--	2,285	16,021	27,808
Residual Fuel Oil	--	9,267	584	--	-439	243	--	--	1,302	7,867	15,241
Petrochemical Feedstocks[e]	--	8,189	3,280	--	-214	-398	--	--	562	11,091	2,847
Special Naphthas	--	1,090	119	--	-286	-10	--	--	265	668	1,707
Lubricants	--	2,865	0	--	-1,415	-39	--	--	218	1,271	7,223
Waxes	--	291	1	--	-6	32	--	--	39	215	511
Petroleum Coke	--	7,350	5	--	0	562	--	--	3,597	3,196	2,973
Asphalt and Road Oil	--	4,079	41	--	-708	-103	--	--	2	3,513	4,184
Still Gas	--	9,438	0	--	0	0	--	--	0	9,438	0
Miscellaneous Products	--	1,190	0	--	-148	-84	--	--	8	1,118	1,372
Total	**132,494**	**215,099**	**133,580**	**3,448**	**-137,167**	**-155**	**5**	**206,063**	**10,216**	**131,325**	**1,023,300**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,476	--	3,831	110	-1,161	91	(s)	6,165	0	0
Natural Gas Liquids and LRGs	1,061	359	49	--	-55	71	--	276	19	1,047
Pentanes Plus	196	--	(s)	--	-15	8	--	117	5	52
Liquefied Petroleum Gases	865	359	49	--	-41	63	--	159	14	996
Ethane/Ethylene	373	6	4	--	50	21	--	5	(s)	408
Propane/Propylene	305	219	13	--	-90	24	--	9	10	404
Normal Butane/Butylene	72	121	28	--	9	20	--	55	4	153
Isobutane	115	12	4	--	-11	-1	--	90	0	31
Other Liquids	29	--	247	--	-28	15	--	303	0	-70
Other Hydrocarbons/Alcohol	29	--	0	--	0	(s)	--	29	0	0
Unfinished Oils	--	--	232	--	-19	11	--	288	0	-87
Motor Gasoline Blend. Comp.	--	--	15	--	-9	4	--	-15	0	17
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	6,682	191	--	-3,208	21	--	--	301	3,343
Finished Motor Gasoline	--	3,192	4	--	-1,939	1	--	--	32	1,224
Leaded	--	311	1	--	-148	-20	--	--	5	179
Unleaded	--	2,881	3	--	-1,791	21	--	--	27	1,046
Finished Aviation Gasoline	--	15	(s)	--	-9	(s)	--	--	0	7
Jet Fuel	--	687	29	--	-453	11	--	--	13	238
Naphtha-Type	--	101	0	--	-25	2	--	--	1	72
Kerosene-Type	--	586	29	--	-428	9	--	--	12	166
Kerosene	--	44	1	--	-10	(s)	--	--	(s)	34
Distillate Fuel Oil	--	1,268	4	--	-708	-1	--	--	52	513
Residual Fuel Oil	--	333	16	--	-5	10	--	--	41	292
Petrochemical Feedstocks[e]	--	272	130	--	-3	(s)	--	--	15	385
Special Naphthas	--	40	4	--	-12	1	--	--	5	27
Lubricants	--	103	(s)	--	-44	2	--	--	8	48
Waxes	--	10	(s)	--	(s)	(s)	--	--	1	8
Petroleum Coke	--	247	1	--	0	-3	--	--	132	117
Asphalt and Road Oil	--	109	1	--	-21	(s)	--	--	(s)	89
Still Gas	--	322	0	--	0	0	--	--	0	322
Miscellaneous Products	--	40	(s)	--	-3	-1	--	--	(s)	38
Total	4,566	7,041	4,318	110	-4,453	198	(s)	6,744	320	4,320

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	**E 15,372**	**--**	**2,043**	**1,190**	**-4,421**	**-642**	**0**	**14,826**	**0**	**0**	**11,603**
Natural Gas Liquids and LRGs	**3,448**	**323**	**235**	**--**	**-1,595**	**6**	**--**	**650**	**0**	**1,755**	**1,266**
Pentanes Plus	714	--	83	--	-231	-30	--	236	0	360	148
Liquefied Petroleum Gases	2,734	323	152	--	-1,364	36	--	414	0	1,395	1,118
Ethane/Ethylene	800	7	0	--	-544	-3	--	0	0	266	131
Propane/Propylene	1,213	221	113	--	-366	23	--	0	0	1,158	513
Normal Butane/Butylene	491	114	34	--	-287	29	--	307	0	16	359
Isobutane	230	-19	5	--	-167	-13	--	107	0	-45	115
Other Liquids	**43**	**--**	**0**	**--**	**0**	**312**	**--**	**-327**	**0**	**58**	**4,691**
Other Hydrocarbons/Alcohol	43	--	0	--	0	24	--	19	0	0	118
Unfinished Oils	--	--	0	--	0	-46	--	-129	0	175	2,518
Motor Gasoline Blend. Comp.	--	--	0	--	0	334	--	-217	0	-117	2,055
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	**--**	**15,166**	**114**	**--**	**-2**	**156**	**--**	**--**	**7**	**15,115**	**10,571**
Finished Motor Gasoline	--	7,252	45	--	-15	299	--	--	3	6,980	4,578
Leaded	--	2,330	3	--	-161	65	--	--	1	2,106	1,674
Unleaded	--	4,922	42	--	146	234	--	--	2	4,874	2,904
Finished Aviation Gasoline	--	26	0	--	14	6	--	--	0	34	53
Jet Fuel	--	1,206	0	--	338	81	--	--	(s)	1,463	1,200
Naphtha-Type	--	494	0	--	-103	109	--	--	(s)	282	432
Kerosene-Type	--	712	0	--	441	-28	--	--	0	1,181	768
Kerosene	--	49	0	--	0	42	--	--	(s)	7	96
Distillate Fuel Oil	--	4,178	67	--	-339	188	--	--	2	3,716	2,743
Residual Fuel Oil	--	239	2	--	0	-43	--	--	(s)	284	560
Petrochemical Feedstocks[e]	--	-42	0	--	0	-42	--	--	0	0	50
Special Naphthas	--	0	0	--	0	-1	--	--	(s)	1	3
Lubricants	--	28	0	--	0	28	--	--	1	-1	184
Waxes	--	36	0	--	0	-6	--	--	(s)	42	80
Petroleum Coke	--	336	0	--	0	-2	--	--	0	338	8
Asphalt and Road Oil	--	1,141	0	--	0	-385	--	--	(s)	1,526	1,003
Still Gas	--	642	0	--	0	0	--	--	0	642	0
Miscellaneous Products	--	75	0	--	0	-9	--	--	0	84	13
Total	**18,863**	**15,489**	**2,392**	**1,190**	**-6,018**	**-168**	**0**	**15,149**	**7**	**16,928**	**28,131**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 521	--	71	41	-176	-1	0	457	0	0
Natural Gas Liquids and LRGs	121	7	9	--	-59	1	--	19	(s)	59
Pentanes Plus	25	--	2	--	-7	(s)	--	5	(s)	14
Liquefied Petroleum Gases	96	7	7	--	-52	1	--	14	(s)	44
Ethane/Ethylene	30	(s)	0	--	-23	(s)	--	(s)	(s)	8
Propane/Propylene	41	6	4	--	-15	(s)	--	(s)	(s)	36
Normal Butane/Butylene	17	2	3	--	-9	(s)	--	11	(s)	2
Isobutane	7	-1	(s)	--	-5	(s)	--	3	0	-2
Other Liquids	1	--	0	--	0	2	--	-4	0	3
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	(s)	0	0
Unfinished Oils	--	--	0	--	0	3	--	-7	0	4
Motor Gasoline Blend. Comp.	--	--	0	--	0	-1	--	3	0	-2
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	474	4	--	-8	-7	--	--	(s)	477
Finished Motor Gasoline	--	236	2	--	-11	-2	--	--	(s)	229
Leaded	--	73	(s)	--	-9	-2	--	--	(s)	66
Unleaded	--	162	1	--	-2	-1	--	--	(s)	163
Finished Aviation Gasoline	--	1	0	--	1	(s)	--	--	0	1
Jet Fuel	--	41	0	--	13	(s)	--	--	(s)	53
Naphtha-Type	--	15	0	--	-3	(s)	--	--	(s)	11
Kerosene-Type	--	26	0	--	16	(s)	--	--	0	42
Kerosene	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Distillate Fuel Oil	--	121	2	--	-10	(s)	--	--	(s)	113
Residual Fuel Oil	--	11	(s)	--	0	(s)	--	--	(s)	11
Petrochemical Feedstocks[e]	--	1	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	(s)	--	0	(s)	--	--	(s)	(s)
Lubricants	--	1	0	--	0	(s)	--	--	(s)	1
Waxes	--	1	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	11
Asphalt and Road Oil	--	29	0	--	0	-5	--	--	(s)	35
Still Gas	--	20	0	--	0	0	--	--	0	20
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	3
Total	643	482	83	41	-243	-6	0	473	(s)	539

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1989

(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	**E 86,526**	**--**	**8,678**	**-3,649**	**-9,094**	**2,047**	**17**	**78,933**	**916**	**548**	**79,60**
Natural Gas Liquids and LRGs	**2,305**	**1,690**	**207**	**--**	**0**	**222**	**--**	**1,839**	**238**	**1,903**	**4,83**
Pentanes Plus	1,246	--	0	--	0	-12	--	841	0	417	6
Liquefied Petroleum Gases	1,059	1,690	207	--	0	234	--	998	238	1,486	4,77
Ethane/Ethylene	1	45	0	--	0	0	--	0	1	45	
Propane/Propylene	328	992	116	--	0	26	--	2	234	1,174	96
Normal Butane/Butylene	555	541	18	--	0	198	--	676	2	238	3,22
Isobutane	175	112	73	--	0	10	--	320	0	30	58
Other Liquids	**324**	**--**	**219**	**--**	**114**	**469**	**--**	**1,084**	**0**	**-896**	**31,16**
Other Hydrocarbons/Alcohol	324	--	0	--	0	-2	--	326	0	0	1
Unfinished Oils	--	--	50	--	114	814	--	589	0	-1,239	23,69
Motor Gasoline Blend. Comp.	--	--	169	--	0	-337	--	163	0	343	7,45
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-6	--	6	0	0	
Finished Petroleum Products	**--**	**84,099**	**785**	**--**	**2,762**	**581**	**--**	**--**	**6,685**	**80,380**	**54,30**
Finished Motor Gasoline	--	35,934	278	--	1,603	-937	--	--	217	38,535	21,87
Leaded	--	7,384	0	--	369	-672	--	--	126	8,299	5,39
Unleaded	--	28,550	278	--	1,234	-265	--	--	92	30,235	16,48
Finished Aviation Gasoline	--	266	8	--	0	11	--	--	0	263	46
Jet Fuel	--	11,975	159	--	560	-209	--	--	103	12,800	7,05
Naphtha-Type	--	1,947	26	--	359	244	--	--	0	2,088	1,79
Kerosene-Type	--	10,028	133	--	201	-453	--	--	103	10,712	5,26
Kerosene	--	127	0	--	0	51	--	--	2	74	13
Distillate Fuel Oil	--	13,094	197	--	599	581	--	--	119	13,190	10,61
Residual Fuel Oil	--	10,791	57	--	0	1,218	--	--	2,762	6,868	7,96
Petrochemical Feedstocks[e]	--	502	36	--	0	-46	--	--	355	229	35
Special Naphthas	--	139	16	--	0	36	--	--	40	79	14
Lubricants	--	499	0	--	0	-148	--	--	90	557	1,56
Waxes	--	84	3	--	0	29	--	--	7	51	20
Petroleum Coke	--	4,027	30	--	0	209	--	--	2,972	876	1,88
Asphalt and Road Oil	--	2,421	1	--	0	-171	--	--	14	2,579	1,69
Still Gas	--	4,242	0	--	0	0	--	--	0	4,242	
Miscellaneous Products	--	-2	0	--	0	-43	--	--	4	37	34
Total	**89,155**	**85,789**	**9,889**	**-3,649**	**-6,218**	**3,319**	**17**	**81,856**	**7,839**	**81,935**	**169,91**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 2,882	--	258	21	-402	(s)	(s)	2,597	134	28
Natural Gas Liquids and LRGs	**81**	**64**	**5**	**--**	**0**	**7**	**--**	**62**	**11**	**69**
Pentanes Plus	42	--	0	--	0	(s)	--	27	1	14
Liquefied Petroleum Gases	38	64	5	--	0	7	--	35	10	55
Ethane/Ethylene	(s)	2	0	--	0	0	--	0	(s)	2
Propane/Propylene	11	35	2	--	0	1	--	(s)	7	40
Normal Butane/Butylene	21	24	2	--	0	6	--	23	3	15
Isobutane	7	3	1	--	0	1	--	11	0	-1
Other Liquids	**16**	**--**	**6**	**--**	**5**	**-3**	**--**	**35**	**0**	**-6**
Other Hydrocarbons/Alcohol	16	--	0	--	0	(s)	--	16	0	0
Unfinished Oils	--	--	4	--	5	3	--	15	0	-8
Motor Gasoline Blend. Comp.	--	--	1	--	0	-5	--	4	0	3
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	**--**	**2,761**	**63**	**--**	**101**	**-25**	**--**	**--**	**313**	**2,638**
Finished Motor Gasoline	--	1,178	24	--	62	-10	--	--	9	1,264
Leaded	--	263	(s)	--	18	-7	--	--	1	287
Unleaded	--	915	24	--	44	-3	--	--	8	977
Finished Aviation Gasoline	--	6	(s)	--	0	(s)	--	--	0	7
Jet Fuel	--	382	10	--	19	-6	--	--	7	410
Naphtha-Type	--	54	1	--	10	(s)	--	--	(s)	65
Kerosene-Type	--	327	9	--	9	-6	--	--	7	344
Kerosene	--	5	0	--	0	(s)	--	--	(s)	5
Distillate Fuel Oil	--	430	5	--	21	-5	--	--	36	425
Residual Fuel Oil	--	378	21	--	0	-4	--	--	154	250
Petrochemical Feedstocks[e]	--	19	1	--	(s)	(s)	--	--	8	11
Special Naphthas	--	4	(s)	--	0	(s)	--	--	2	2
Lubricants	--	20	(s)	--	(s)	1	--	--	3	16
Waxes	--	3	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	130	(s)	--	0	(s)	--	--	92	38
Asphalt and Road Oil	--	64	(s)	--	0	-1	--	--	1	64
Still Gas	--	141	0	--	0	0	--	--	0	141
Miscellaneous Products	--	3	0	--	0	(s)	--	--	(s)	3
Total	**2,979**	**2,825**	**332**	**21**	**-296**	**-21**	**(s)**	**2,694**	**457**	**2,730**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	July 1989		January-July 1989	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 995**	**E 32**	**E 7,169**	**E 34**
Florida	598	19	4,238	20
New York	E 41	E 1	E 300	E 1
Pennsylvania	E 182	E 6	E 1,460	E 7
Virginia	E 2	E (s)	E 11	E (s)
West Virginia	165	5	1,267	6
Adjustment[a]	7	(s)	-107	-1
PAD District II	**E 23,554**	**E 760**	**E 164,930**	**E 778**
Illinois	1,675	54	12,721	60
Indiana	278	9	E 1,997	E 9
Kansas	4,614	149	E 31,711	E 150
Kentucky	439	14	3,303	16
Michigan	E 1,800	E 58	E 12,528	E 59
Missouri	11	(s)	74	(s)
Nebraska	537	17	E 3,723	E 18
North Dakota	3,132	101	E 21,263	E 100
Ohio	E 851	E 27	E 6,179	E 29
Oklahoma	9,812	317	68,371	323
South Dakota	138	4	929	4
Tennessee	44	1	E 337	E 2
Adjustment[a]	223	7	1,794	8
PAD District III	**E 106,519**	**E 3,436**	**E 742,174**	**E 3,501**
Alabama	1,771	57	11,929	56
Arkansas	E 980	E 32	E 7,019	E 33
Louisiana[b]	E 13,121	E 423	E 90,114	E 425
Mississippi	2,344	76	15,955	75
New Mexico	5,694	184	40,003	189
Texas[b]	57,888	1,867	403,929	1,905
Federal Offshore PAD District III	E 23,991	E 774	E 166,896	E 787
Adjustment[a]	730	24	6,329	30
PAD DISTRICT IV	**15,760**	**508**	**E 110,847**	**E 523**
Colorado	2,319	75	E 18,061	E 85
Montana	1,665	54	12,158	57
Utah	2,420	78	16,448	78
Wyoming	9,107	294	63,401	299
Adjustment[a]	249	8	779	4
PAD District V	**84,862**	**2,737**	**611,261**	**2,883**
Alaska[b]	53,484	1,725	395,080	1,864
South Alaska	1,346	43	9,124	43
North Slope	52,138	1,682	385,955	1,821
Adjustment for Alaska[a]	0	0	1	(s)
Arizona	12	(s)	76	(s)
California[b]	28,095	906	193,488	913
Nevada	261	8	1,817	9
Federal Offshore PAD District V	2,913	94	18,424	87
Adjustment excluding Alaska[a]	97	3	2,376	11
U.S. Total[b]	**E 231,690**	**E 7,474**	**E 1,636,381**	**E 7,719**

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 4,156; California: State - 2,182; Louisiana: State - E1,980; Texas: State - 117; U.S. Total, including Federal offshore - E35,339.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, September 1989

(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production			
Natural Gas Liquids	**237**	**632**	**869**	**620**	**356**	**6,749**	**7,725**
Pentanes Plus	46	75	121	133	89	1,179	1,401
Liquefied Petroleum Gases	191	557	748	487	267	5,570	6,324
Ethane	55	181	236	104	0	1,683	1,787
Propane	73	258	331	220	159	2,526	2,905
Normal Butane	49	85	134	87	104	849	1,040
Isobutane	14	33	47	76	4	512	592
				Stocks			
Natural Gas Liquids	**286**	**42**	**328**	**292**	**55**	**1,821**	**2,168**
Pentanes Plus	52	10	62	26	13	147	186
Liquefied Petroleum Gases	234	32	266	266	42	1,674	1,982
Ethane	0	0	0	17	0	417	434
Propane	165	27	192	152	30	686	868
Normal Butane	68	3	71	78	12	428	518
Isobutane	1	2	3	19	0	143	162

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
					Net Production				
Natural Gas Liquids	**17,128**	**2,582**	**6,219**	**571**	**3,504**	**30,004**	**3,448**	**2,305**	**44,351**
Pentanes Plus	3,387	608	1,158	168	522	5,843	714	1,246	9,325
Liquefied Petroleum Gases	13,741	1,974	5,061	403	2,982	24,161	2,734	1,059	35,026
Ethane	5,576	922	2,161	73	1,328	10,060	800	1	12,884
Propane	5,132	652	1,718	172	1,058	8,732	1,213	328	13,509
Normal Butane	2,233	-1,136	578	114	395	2,184	491	555	4,404
Isobutane	800	1,536	604	44	201	3,185	230	175	4,229
					Stocks				
Natural Gas Liquids	**1,146**	**4,247**	**1,253**	**147**	**131**	**6,924**	**175**	**50**	**9,645**
Pentanes Plus	405	610	285	30	34	1,364	59	15	1,686
Liquefied Petroleum Gases	741	3,637	968	117	97	5,560	116	35	7,959
Ethane	81	1,214	4	31	15	1,345	2	0	1,781
Propane	338	901	484	41	52	1,816	71	20	2,967
Normal Butane	266	989	447	34	16	1,752	38	11	2,390
Isobutane	56	533	33	11	14	647	5	4	821

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1989
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**39,064**	**2,680**	**41,744**	**60,199**	**9,295**	**20,951**	**90,445**
Natural Gas Liquids	**124**	**2**	**126**	**1,781**	**189**	**1,084**	**3,054**
Pentanes Plus	1	0	1	524	62	497	1,083
Liquefied Petroleum Gases	123	2	125	1,257	127	587	1,971
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	32	0	0	32
Normal Butane	45	2	47	333	31	192	556
Isobutane	78	0	78	892	96	395	1,383
Other Liquids	**4,445**	**396**	**4,841**	**1,460**	**7**	**-149**	**1,318**
Other Hydrocarbons/Alcohol	110	0	110	300	2	8	310
Unfinished Oils (net)	4,474	396	4,870	944	132	372	1,448
Motor Gasoline Blend. Comp. (net)	-139	0	-139	218	-127	-583	-492
Aviation Gasoline Blend. Comp. (net)	0	0	0	-2	0	54	52
Total Input to Refineries	**43,633**	**3,078**	**46,711**	**63,440**	**9,491**	**21,886**	**94,817**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,285	92	1,377	2,010	312	703	3,025
Operable Capacity (daily average)	1,339	124	1,464	2,193	342	735	3,270
Operable Utilization Rate (percent)[a,b]	96.0	74.0	94.1	91.7	91.1	95.7	92.5
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	555	17	572	716	111	243	1,071
Catalytic Hydrocracking	70	0	70	105	0	3	108
Delayed and Fluid Coking	74	0	74	120	36	64	219
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.32	0.71	1.27	1.07	1.79	0.61	1.04
API Gravity, Weighted Average (degrees)	29.66	37.66	30.24	34.11	31.32	36.73	34.43
Operable Capacity (daily average)	**1,339**	**124**	**1,464**	**2,193**	**342**	**735**	**3,270**
Operating	1,326	124	1,451	2,191	342	735	3,268
Idle	13	0	13	2	0	0	2
Alaskan Crude Oil Receipts	**61**	**0**	**61**	**676**	**0**	**191**	**867**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1989 (Continued)
(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**15,571**	**95,215**	**69,575**	**4,997**	**2,204**	**187,562**	**14,826**	**78,933**	**413,510**
Natural Gas Liquids	**1,525**	**3,678**	**3,711**	**306**	**182**	**9,402**	**650**	**1,839**	**15,071**
Pentanes Plus	918	1,517	1,062	194	129	3,820	236	841	5,981
Liquefied Petroleum Gases	607	2,161	2,649	112	53	5,582	414	998	9,090
Ethane	0	0	164	0	0	164	0	0	164
Propane	0	113	152	0	0	265	0	2	299
Normal Butane	235	877	983	20	10	2,125	307	676	3,711
Isobutane	372	1,171	1,350	92	43	3,028	107	320	4,916
Other Liquids	**-46**	**7,333**	**1,902**	**-90**	**0**	**9,099**	**-327**	**1,084**	**16,015**
Other Hydrocarbons/Alcohol	0	595	440	0	23	1,058	19	326	1,823
Unfinished Oils (net)	129	7,411	735	-77	6	8,204	-129	589	14,982
Motor Gasoline Blend. Comp. (net)	-175	-672	678	-13	-29	-211	-217	163	-896
Aviation Gasoline Blend. Comp. (net)	0	-1	49	0	0	48	0	6	106
Total Input to Refineries	**17,050**	**106,226**	**75,188**	**5,213**	**2,386**	**206,063**	**15,149**	**81,856**	**444,596**
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	524	3,184	2,309	169	74	6,260	499	2,730	13,891
Operable Capacity (daily average)	558	3,528	2,950	255	76	7,366	554	3,056	15,709
Operable Utilization Rate (percent)[a,b]	94.0	90.3	78.3	66.4	97.3	85.0	90.1	89.4	88.4
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	188	1,279	791	27	28	2,312	157	691	4,803
Catalytic Hydrocracking	18	181	212	0	0	412	8	361	958
Delayed and Fluid Coking	9	189	357	5	0	560	19	462	1,334
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.70	0.98	1.13	1.35	0.79	1.02	0.95	1.11	1.06
API Gravity, Weighted Average (degrees)	38.17	33.82	31.78	34.13	39.47	33.49	35.45	26.02	32.03
Operable Capacity (daily average)	**558**	**3,528**	**2,950**	**255**	**76**	**7,366**	**554**	**3,056**	**15,709**
Operating	536	3,343	2,453	244	76	6,650	554	3,027	14,950
Idle	22	185	498	11	0	716	0	29	759
Alaskan Crude Oil Receipts	**0**	**3,775**	**931**	**263**	**0**	**4,969**	**0**	**41,994**	**47,891**

[a] Represents gross input divided by operable capacity.
[b] See Table H2 in the Highlights Section for additional information concerning utilization rates.
(s) = Less than 500 barrels.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, September 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,712	-1	1,711	2,123	246	491	2,860
Ethane/Ethylene	191	0	191	30	0	0	30
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,305	30	1,335	2,047	211	551	2,809
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	134	-28	106	45	4	-60	-11
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	82	-3	79	1	31	0	32
Finished Motor Gasoline	19,495	1,183	20,678	34,429	4,780	11,006	50,215
Leaded	330	109	439	943	788	2,474	4,205
Unleaded	19,165	1,074	20,239	33,486	3,992	8,532	46,010
Finished Aviation Gasoline	11	0	11	47	31	20	98
Jet Fuel	3,077	25	3,102	3,294	533	1,536	5,363
Naphtha-Type	503	25	528	268	23	289	580
Kerosene-Type	2,574	0	2,574	3,026	510	1,247	4,783
Kerosene	203	22	225	311	95	32	438
Distillate Fuel Oil	10,122	964	11,086	13,197	2,083	5,649	20,929
Residual Fuel Oil	3,286	63	3,349	1,468	303	156	1,927
Less than 0.31 percent sulfur	646	14	660	65	0	0	65
0.31 to 1.00 percent sulfur	2,101	0	2,101	191	0	84	275
Greater than 1.00 percent sulfur	539	49	588	1,212	303	72	1,587
Naphtha for Petrochemical Feedstock Use	193	0	193	558	0	48	606
Other Oils for Petrochemical Feedstock Use	13	0	13	658	0	80	738
Special Naphthas	135	5	140	182	0	247	429
Lubricants	250	332	582	436	0	350	786
Naphthenic	65	0	65	0	0	0	0
Paraffinic	185	332	517	436	0	350	786
Waxes	0	77	77	10	0	36	46
Petroleum Coke	1,273	23	1,296	2,037	409	820	3,266
Marketable	364	0	364	1,011	266	539	1,816
Catalyst	909	23	932	1,026	143	281	1,450
Asphalt and Road Oil	3,828	254	4,082	4,340	1,027	1,125	6,492
Still Gas	1,883	148	2,031	2,862	376	881	4,119
Miscellaneous Products	277	40	317	165	29	60	254
Fuel Use	4	0	4	0	0	0	0
Nonfuel Use	273	40	313	165	29	60	254
Total	**45,758**	**3,135**	**48,893**	**66,117**	**9,912**	**22,537**	**98,566**
Processing Gain(-) or Loss(+)[a]	-2,125	-57	-2,182	-2,677	-421	-651	-3,749

See footnotes at end of table.

able 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, September 1989 (Continued)
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
quefied Refinery Gases	251	5,808	4,152	97	112	10,420	323	1,690	17,004
Ethane/Ethylene	-73	342	10	0	0	279	7	45	552
Ethane	W	W	W	W	W	W	W	W	313
Ethylene	W	W	W	W	W	W	W	W	239
Propane/Propylene	361	4,006	1,939	75	66	6,447	221	992	11,804
Propane	W	W	W	W	W	W	W	W	8,733
Propylene	W	W	W	W	W	W	W	W	3,071
Normal Butane/Butylene	-220	1,411	2,177	22	39	3,429	114	541	4,179
Normal Butane	W	W	W	W	W	W	W	W	3,876
Butylene	W	W	W	W	W	W	W	W	303
Isobutane	183	49	26	0	7	265	-19	112	469
nished Motor Gasoline	8,845	49,823	36,449	1,453	1,325	97,895	7,252	35,934	211,974
Leaded	1,519	4,585	1,733	36	393	8,266	2,330	7,384	22,624
Unleaded	7,326	45,238	34,716	1,417	932	89,629	4,922	28,550	189,350
nished Aviation Gasoline	178	215	163	0	0	556	26	266	957
et Fuel	2,041	9,877	9,097	362	297	21,674	1,206	11,975	43,320
Naphtha-Type	933	1,130	688	236	234	3,221	494	1,947	6,770
Kerosene-Type	1,108	8,747	8,409	126	63	18,453	712	10,028	36,550
erosene	18	1,121	401	43	0	1,583	49	127	2,422
istillate Fuel Oil	3,799	19,054	14,521	1,340	498	39,212	4,178	13,094	88,499
esidual Fuel Oil	309	5,973	2,731	233	21	9,267	239	10,791	25,573
Less than 0.31 percent sulfur	162	0	868	72	12	1,114	-12	1,023	2,850
0.31 to 1.00 percent sulfur	57	1,176	496	121	9	1,859	23	1,266	5,524
Greater than 1.00 percent sulfur	90	4,797	1,367	40	0	6,294	228	8,502	17,199
aphtha for Petrochemical Feedstock Use	92	1,813	158	29	0	2,092	-42	202	3,051
ther Oils for Petrochemical Feedstock Use	143	4,433	1,521	0	0	6,097	0	300	7,148
pecial Naphthas	83	816	40	151	0	1,090	0	139	1,798
ubricants	23	2,070	319	453	0	2,865	28	499	4,760
Naphthenic	23	362	0	304	0	689	0	219	973
Paraffinic	0	1,708	319	149	0	2,176	28	280	3,787
/axes	7	217	13	54	0	291	36	84	534
etroleum Coke	344	3,299	3,581	107	19	7,350	336	4,027	16,275
Marketable	51	1,612	2,731	30	0	4,424	145	3,008	9,757
Catalyst	293	1,687	850	77	19	2,926	191	1,019	6,518
sphalt and Road Oil	478	1,025	1,678	793	105	4,079	1,141	2,421	18,215
till Gas	735	5,017	3,459	151	76	9,438	642	4,242	20,472
iscellaneous Products	38	764	388	0	0	1,190	75	-2	1,834
Fuel Use	1	0	41	0	0	42	5	0	51
Nonfuel Use	37	764	347	0	0	1,148	70	-2	1,783
otal	**17,384**	**111,325**	**78,671**	**5,266**	**2,453**	**215,099**	**15,489**	**85,789**	**463,836**
rocessing Gain(-) or Loss(+)[a]	-334	-5,099	-3,483	-53	-67	-9,036	-340	-3,933	-19,240

[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**12,471**	**787**	**13,258**	**8,420**	**2,080**	**2,245**	**12,745**
Petroleum Products	**42,292**	**2,743**	**45,035**	**41,157**	**7,660**	**16,299**	**65,116**
Pentanes Plus	14	0	14	86	23	137	246
Liquefied Petroleum Gases	1,581	7	1,588	3,019	159	604	3,782
Ethane/Ethylene	21	0	21	1	0	0	1
Propane/Propylene	1,246	2	1,248	1,889	37	208	2,134
Normal Butane/Butylene	277	3	280	898	51	296	1,245
Isobutane	37	2	39	231	71	100	402
Other Hydrocarbons and Alcohol	250	0	250	88	3	39	130
Unfinished Oils	12,072	757	12,829	11,897	509	4,987	17,393
Naphthas and Lighter	3,610	208	3,818	2,976	170	1,664	4,810
Kerosene and Light Gas Oils	2,551	170	2,721	1,620	86	250	1,956
Heavy Gas Oils	4,951	283	5,234	3,973	250	1,971	6,194
Residuum	960	96	1,056	3,328	3	1,102	4,433
Motor Gasoline Blending Components	5,293	74	5,367	5,799	851	2,227	8,877
Aviation Gasoline Blending Components	0	0	0	74	0	7	81
Finished Motor Gasoline	7,717	418	8,135	5,757	1,232	2,472	9,461
Leaded	103	42	145	412	314	673	1,399
Unleaded	7,614	376	7,990	5,345	918	1,799	8,062
Finished Aviation Gasoline	22	0	22	60	21	25	106
Jet Fuel	2,011	25	2,036	1,729	192	643	2,564
Naphtha-Type	238	25	263	331	36	151	518
Kerosene-Type	1,773	0	1,773	1,398	156	492	2,046
Kerosene	277	61	338	367	24	381	772
Distillate Fuel Oil	6,249	460	6,709	5,267	1,087	2,924	9,278
Residual Fuel Oil	2,412	104	2,516	1,900	233	108	2,241
Less than 0.31 percent sulfur	274	77	351	48	0	0	48
0.31 to 1.00 percent sulfur	1,445	0	1,445	311	0	65	376
Greater than 1.00 percent sulfur	693	27	720	1,541	233	43	1,817
Naphtha for Petrochemical Feedstock Use	327	0	327	325	0	64	389
Other Oils for Petrochemical Feedstock Use	8	0	8	0	0	19	19
Special Naphthas	534	18	552	121	0	152	273
Lubricants	272	622	894	1,010	0	300	1,310
Waxes	0	50	50	62	0	24	86
Petroleum Coke (Marketable)	762	0	762	333	2,342	319	2,994
Asphalt and Road Oil	2,272	102	2,374	3,143	977	851	4,971
Miscellaneous Products	219	45	264	120	7	16	143
Total Stocks, All Oils	**54,763**	**3,530**	**58,293**	**49,577**	**9,740**	**18,544**	**77,861**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1989 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**1,203**	**27,175**	**16,086**	**1,241**	**241**	**45,946**	**1,871**	**23,842**	**97,662**
Petroleum Products	**11,888**	**80,631**	**51,039**	**5,305**	**1,320**	**150,183**	**11,159**	**60,705**	**332,198**
Pentanes Plus	235	121	78	10	28	472	4	23	759
Liquefied Petroleum Gases	2,848	4,289	4,678	23	84	11,922	464	1,364	19,120
Ethane/Ethylene	41	1,004	0	0	0	1,045	1	0	1,068
Propane/Propylene	1,470	1,795	1,274	6	5	4,550	168	94	8,194
Normal Butane/Butylene	1,002	915	2,890	6	73	4,886	231	1,011	7,653
Isobutane	335	575	514	11	6	1,441	64	259	2,205
Other Hydrocarbons and Alcohol	0	201	93	0	6	300	118	11	809
Unfinished Oils	2,807	27,807	19,145	787	142	50,688	2,518	23,696	107,124
Naphthas and Lighter	876	7,617	5,022	298	39	13,852	601	4,428	27,509
Kerosene and Light Gas Oils	403	6,483	2,401	84	3	9,374	396	3,250	17,697
Heavy Gas Oils	807	9,041	8,668	379	100	18,995	1,215	11,741	43,379
Residuum	721	4,666	3,054	26	0	8,467	306	4,277	18,539
Motor Gasoline Blending Components	1,449	7,935	5,425	203	270	15,282	1,955	7,331	38,812
Aviation Gasoline Blending Components	0	0	38	0	0	38	0	6	125
Finished Motor Gasoline	1,888	11,923	5,560	856	202	20,429	1,934	8,477	48,436
Leaded	426	894	383	36	88	1,827	745	1,986	6,102
Unleaded	1,462	11,029	5,177	820	114	18,602	1,189	6,491	42,334
Finished Aviation Gasoline	97	314	183	0	0	594	44	211	977
Jet Fuel	686	4,466	2,872	249	206	8,479	664	3,428	17,171
Naphtha-Type	261	685	539	188	127	1,800	261	825	3,667
Kerosene-Type	425	3,781	2,333	61	79	6,679	403	2,603	13,504
Kerosene	52	523	417	90	0	1,082	71	76	2,339
Distillate Fuel Oil	822	8,932	4,004	932	101	14,791	1,519	5,016	37,313
Residual Fuel Oil	237	4,088	3,231	176	32	7,764	560	5,938	19,019
Less than 0.31 percent sulfur	38	0	1,250	4	26	1,318	38	591	2,346
0.31 to 1.00 percent sulfur	8	645	234	117	6	1,010	189	913	3,933
Greater than 1.00 percent sulfur	191	3,443	1,747	55	0	5,436	333	4,434	12,740
Naphtha for Petrochemical Feedstock Use	32	887	188	12	10	1,129	48	186	2,079
Other Oils for Petrochemical Feedstock Use	102	1,299	317	0	0	1,718	2	166	1,913
Special Naphthas	97	1,366	20	174	0	1,657	3	132	2,617
Lubricants	18	4,304	1,588	545	0	6,455	184	853	9,696
Waxes	6	289	191	25	0	511	80	202	929
Petroleum Coke (Marketable)	16	593	2,080	284	0	2,973	8	1,885	8,622
Asphalt and Road Oil	485	971	749	939	239	3,383	970	1,552	13,250
Miscellaneous Products	11	323	182	0	0	516	13	152	1,088
Total Stocks, All Oils	**13,091**	**107,806**	**67,125**	**6,546**	**1,561**	**196,129**	**13,030**	**84,547**	**429,860**

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] September 1989

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	3.9	0.0	3.7	3.5	2.6	2.3	3.1
Finished Motor Gasoline[b]	44.6	38.4	44.2	52.5	50.0	49.2	51.5
Finished Aviation Gasoline[c]	0.0	0.0	0.0	0.1	0.3	-0.2	0.1
Naphtha-Type Jet Fuel	1.2	0.8	1.1	0.4	0.2	1.4	0.6
Kerosene-Type Jet Fuel	5.9	0.0	5.5	4.9	5.4	5.8	5.2
Kerosene	0.5	0.7	0.5	0.5	1.0	0.2	0.5
Distillate Fuel Oil	23.2	31.3	23.8	21.6	22.1	26.5	22.8
Residual Fuel Oil	7.5	2.0	7.2	2.4	3.2	0.7	2.1
Naphtha for Petrochemical Feedstock Use	0.4	0.0	0.4	0.9	0.0	0.2	0.7
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.1	0.0	0.4	0.8
Special Naphthas	0.3	0.2	0.3	0.3	0.0	1.2	0.5
Lubricants	0.6	10.8	1.2	0.7	0.0	1.6	0.9
Waxes	0.0	2.5	0.2	0.0	0.0	0.2	0.1
Petroleum Coke	2.9	0.7	2.8	3.3	4.3	3.8	3.6
Asphalt and Road Oil	8.8	8.3	8.8	7.1	10.9	5.3	7.1
Still Gas	4.3	4.8	4.4	4.7	4.0	4.1	4.5
Miscellaneous Products	0.6	1.3	0.7	0.3	0.3	0.3	0.3
Processing Gain(-) or Loss(+)[d]	-4.9	-1.9	-4.7	-4.4	-4.5	-3.1	-4.1

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1.6	5.7	5.9	2.0	5.1	5.3	2.2	2.1	4.0
Finished Motor Gasoline[b]	47.7	45.0	45.0	23.6	52.0	44.8	46.3	42.3	45.7
Finished Aviation Gasoline[c]	1.1	0.2	0.2	0.0	0.0	0.3	0.2	0.3	0.2
Naphtha-Type Jet Fuel	5.9	1.1	1.0	4.8	10.6	1.6	3.4	2.4	1.6
Kerosene-Type Jet Fuel	7.1	8.5	12.0	2.6	2.9	9.4	4.8	12.6	8.5
Kerosene	0.1	1.1	0.6	0.9	0.0	0.8	0.3	0.2	0.6
Distillate Fuel Oil	24.2	18.6	20.7	27.2	22.5	20.0	28.4	16.5	20.7
Residual Fuel Oil	2.0	5.8	3.9	4.7	1.0	4.7	1.6	13.6	6.0
Naphtha for Petrochemical Feedstock Use	0.6	1.8	0.2	0.6	0.0	1.1	-0.3	0.3	0.7
Other Oils for Petrochemical Feedstock Use	0.9	4.3	2.2	0.0	0.0	3.1	0.0	0.4	1.7
Special Naphthas	0.5	0.8	0.1	3.1	0.0	0.6	0.0	0.2	0.4
Lubricants	0.1	2.0	0.5	9.2	0.0	1.5	0.2	0.6	1.1
Waxes	0.0	0.2	0.0	1.1	0.0	0.1	0.2	0.1	0.1
Petroleum Coke	2.2	3.2	5.1	2.2	0.9	3.8	2.3	5.1	3.8
Asphalt and Road Oil	3.0	1.0	2.4	16.1	4.8	2.1	7.8	3.0	4.3
Still Gas	4.7	4.9	4.9	3.1	3.4	4.8	4.4	5.3	4.8
Miscellaneous Products	0.2	0.7	0.6	0.0	0.0	0.6	0.5	0.0	0.4
Processing Gain(-) or Loss(+)[d]	-2.1	-5.0	-5.0	-1.1	-3.0	-4.6	-2.3	-4.9	-4.5

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, September 1989
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**3,004**	**2,821**	**6,093**	**11,918**
Connecticut	0	185	0	185
Delaware	0	55	0	55
Florida	0	43	650	693
Georgia	0	0	314	314
Maine	0	235	639	874
Maryland	0	333	644	977
Massachusetts	0	136	621	757
New Hampshire	0	0	40	40
New Jersey	743	82	564	1,389
New York	2,261	1,198	1,835	5,294
North Carolina	0	0	187	187
Pennsylvania	0	309	232	541
Rhode Island	0	223	0	223
South Carolina	0	22	21	43
Vermont	0	0	4	4
Virginia	0	0	342	342
PAD District II	**47**	**1**	**32**	**80**
Michigan	47	0	0	47
Minnesota	0	0	5	5
North Dakota	0	1	27	28
PAD District III	**0**	**0**	**584**	**584**
Texas	0	0	584	584
PAD District IV	**0**	**0**	**2**	**2**
Montana	0	0	2	2
PAD District V	**0**	**57**	**0**	**57**
Hawaii	0	57	0	57
U.S. Total	**3,051**	**2,879**	**6,711**	**12,641**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, September 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						
	I	II	III	IV	V	U.S. Total	Daily Average
Crude Oil[a,b]	**38,044**	**37,385**	**94,786**	**2,043**	**8,678**	**180,936**	**6,031**
Natural Gas Liquids	**542**	**2,569**	**1,629**	**235**	**207**	**5,182**	**173**
Pentanes Plus	0	30	0	83	0	113	4
Liquefied Petroleum Gases	542	2,539	1,629	152	207	5,069	169
Ethane/Ethylene	0	240	0	0	0	240	8
Propane/Propylene	505	1,848	752	113	116	3,334	111
Normal Butane/Butylene	28	366	789	34	18	1,235	41
Isobutane	9	85	88	5	73	260	9
Other Liquids	**5,839**	**0**	**8,503**	**0**	**219**	**14,561**	**485**
Unfinished Oils[a]	3,697	0	7,985	0	50	11,732	391
Naphthas and Lighter	717	0	1,080	0	0	1,797	60
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	2,274	0	1,120	0	50	3,444	115
Residuum	706	0	5,785	0	0	6,491	216
Motor Gasoline Blending Components	2,142	0	518	0	169	2,829	94
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**30,562**	**970**	**5,299**	**114**	**785**	**37,730**	**1,258**
Finished Motor Gasoline	8,391	160	491	45	278	9,365	312
Leaded	2	0	0	3	0	5	(s)
Unleaded	8,389	160	491	42	278	9,360	312
Finished Aviation Gasoline	2	0	15	0	8	25	1
Jet Fuel	1,851	70	763	0	159	2,843	95
Naphtha-Type	0	70	0	0	26	96	3
Kerosene-Type	1,851	0	763	0	133	2,747	92
Bonded Aircraft Fuel	1,066	0	562	0	0	1,628	54
Other	785	0	201	0	133	1,119	37
Kerosene	21	0	0	0	0	21	1
Distillate Fuel Oil	6,528	497	0	67	197	7,289	243
Bonded Ship Bunkers	129	0	0	0	0	129	4
Other	6,399	497	0	67	197	7,160	239
Residual Fuel Oil	11,918	80	584	2	57	12,641	421
Bonded Ship Bunkers	157	0	0	0	0	157	5
Other	11,761	80	584	2	57	12,484	416
Naphtha for Petrochemical Feedstock Use	243	20	2,031	0	36	2,330	78
Other Oils for Petrochemical Feedstock Use	0	0	1,249	0	0	1,249	42
Special Naphthas	9	63	119	0	16	207	7
Lubricants	175	28	0	0	0	203	7
Waxes	21	6	1	0	3	31	1
Petroleum Coke	0	0	5	0	30	35	1
Asphalt and Road Oil	1,373	42	41	0	1	1,457	49
Miscellaneous Products	30	4	0	0	0	34	1
Total	**74,987**	**40,924**	**110,217**	**2,392**	**9,889**	**238,409**	**7,947**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

able 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-September 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
rude Oil[a,b]	**316,651**	**283,767**	**883,811**	**19,255**	**70,484**	**1,573,968**	**5,765**
atural Gas Liquids	**8,456**	**24,501**	**13,389**	**2,430**	**1,371**	**50,147**	**184**
Pentanes Plus	1,170	330	2	548	0	2,050	8
Liquefied Petroleum Gases	7,286	24,171	13,387	1,882	1,371	48,097	176
Ethane/Ethylene	0	1,260	989	0	0	2,249	8
Propane/Propylene	5,910	17,963	3,674	1,135	627	29,309	107
Normal Butane/Butylene	1,338	4,159	7,696	725	421	14,339	53
Isobutane	38	789	1,028	22	323	2,200	8
ther Liquids	**44,971**	**0**	**67,302**	**0**	**1,535**	**113,808**	**417**
Unfinished Oils[a]	34,167	0	63,210	0	1,203	98,580	361
Naphthas and Lighter	2,935	0	16,310	0	202	19,447	71
Kerosene and Light Gas Oils	710	0	0	0	0	710	3
Heavy Gas Oils	25,975	0	11,929	0	770	38,674	142
Residuum	4,547	0	34,971	0	231	39,749	146
Motor Gasoline Blending Components	10,804	0	4,092	0	332	15,228	56
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
nished Petroleum Products	**360,024**	**6,476**	**52,240**	**1,021**	**17,216**	**436,977**	**1,601**
Finished Motor Gasoline	91,229	1,062	1,117	410	6,474	100,292	367
Leaded	784	28	206	29	51	1,098	4
Unleaded	90,445	1,034	911	381	6,423	99,194	363
Finished Aviation Gasoline	11	0	27	0	124	162	1
Jet Fuel	17,564	795	7,829	0	2,753	28,941	106
Naphtha-Type	0	795	0	0	268	1,063	4
Kerosene-Type	17,564	0	7,829	0	2,485	27,878	102
Bonded Aircraft Fuel	7,891	0	7,038	0	859	15,788	58
Other	9,673	0	791	0	1,626	12,090	44
Kerosene	1,084	0	337	0	0	1,421	5
Distillate Fuel Oil	78,317	1,820	1,142	595	1,477	83,351	305
Bonded Ship Bunkers	491	0	0	10	0	501	2
Other	77,826	1,820	1,142	585	1,477	82,850	303
Residual Fuel Oil	158,130	1,327	4,470	6	5,766	169,699	622
Bonded Ship Bunkers	639	0	633	0	0	1,272	5
Other	157,491	1,327	3,837	6	5,766	168,427	617
Naphtha for Petrochemical Feedstock Use	1,729	278	19,123	0	287	21,417	78
Other Oils for Petrochemical Feedstock Use	145	0	16,497	0	0	16,642	61
Special Naphthas	88	620	1,155	1	111	1,975	7
Lubricants	2,807	233	22	0	90	3,152	12
Waxes	279	114	11	9	27	440	2
Petroleum Coke	22	0	152	0	84	258	1
Asphalt and Road Oil	8,149	180	286	0	23	8,638	32
Miscellaneous Products	470	47	72	0	0	589	2
otal	**730,102**	**314,744**	**1,016,742**	**22,706**	**90,606**	**2,174,900**	**7,967**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District f entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**56,222**	**902**	**3,826**	**0**	**323**	**120**	**450**	**711**	**281**	**260**	**1,252**
Algeria	1,750	902	1,045	0	0	0	227	711	281	0	992
Iraq	14,947	0	445	0	0	0	0	0	0	0	0
Kuwait	8,135	0	0	0	0	0	0	0	0	0	0
Qatar	767	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	30,623	0	1,723	0	323	120	223	0	0	260	260
United Arab Emirates	0	0	613	0	0	0	0	0	0	0	0
Other OPEC	**49,993**	**0**	**1,603**	**240**	**2,321**	**769**	**3,036**	**640**	**0**	**2,181**	**2,821**
Ecuador	3,271	0	0	0	0	0	0	0	0	178	178
Gabon	954	0	0	0	0	0	0	0	0	0	0
Indonesia	2,728	0	647	0	0	0	0	0	0	0	0
Nigeria	25,990	0	0	0	0	0	233	640	0	60	700
Venezuela	17,050	0	956	240	2,321	769	2,803	0	0	1,943	1,943
Non OPEC	**74,721**	**4,167**	**6,303**	**2,589**	**6,721**	**1,954**	**3,803**	**1,700**	**2,598**	**4,270**	**8,568**
Angola	9,625	0	0	0	0	0	0	0	0	0	0
Argentina	406	0	0	189	0	0	0	0	0	0	0
Australia	1,364	0	0	0	0	0	0	0	57	0	57
Bahama Islands	0	0	0	0	0	0	245	0	0	0	0
Belgium	0	0	306	0	0	0	0	160	0	0	160
Brazil	0	0	0	232	1,429	0	0	516	0	15	531
Brunei	493	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	190	0	0	0	0
Cameroon	1,644	0	0	0	0	0	0	0	0	0	0
Canada	19,712	3,059	341	0	1,507	520	1,867	47	1	346	394
China, People's Republic of	2,622	0	0	0	0	0	0	0	0	0	0
Colombia	3,908	0	0	0	0	0	0	0	0	505	505
Egypt	682	0	222	0	0	0	0	0	0	0	0
France	0	20	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	256	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	163	0	0	163
Greece	0	0	0	0	0	0	0	318	0	0	318
India	0	0	275	0	0	0	0	0	0	0	0
Italy	0	0	233	0	0	0	0	0	0	199	199
Japan	0	48	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Mexico	19,759	1,040	0	0	0	185	404	0	0	0	0
Netherlands	0	0	496	7	780	0	0	0	338	0	338
Netherlands Antilles	0	0	0	248	246	0	0	0	0	563	563
Norway	3,569	0	273	0	0	0	0	0	546	0	546
Oman	2,111	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	198	331	529
Puerto Rico	0	0	55	496	0	0	0	0	0	0	0
Romania	0	0	0	1,089	484	0	0	0	0	0	0
Spain	0	0	611	0	517	419	0	0	374	0	374
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	586	0	0	0	0	0	0	0	0	238	238
Thailand	654	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,064	0	0	0	0	0	199	0	0	562	562
Turkey	0	0	269	0	0	0	0	0	0	628	628
United Kingdom	4,473	0	0	0	235	0	0	0	1,019	2	1,021
U.S.S.R.	0	0	1,749	0	0	0	0	0	0	303	303
Virgin Islands	0	0	1,113	328	1,523	830	898	496	65	408	969
Zaire	1,049	0	0	0	0	0	0	0	0	0	0
Other	0	0	104	0	0	0	0	0	0	170	170
Total	180,936	5,069	11,732	2,829	9,365	2,843	7,289	3,051	2,879	6,711	12,641

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] September 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,503**	**1,249**	**0**	**0**	**0**	**9,625**	**65,847**	**2,195**
Algeria	0	0	1,503	1,249	0	0	0	5,918	7,668	256
Iraq	0	0	0	0	0	0	0	445	15,392	513
Kuwait	0	0	0	0	0	0	0	0	8,135	271
Qatar	0	0	0	0	0	0	0	0	767	26
Saudi Arabia	0	0	0	0	0	0	0	2,649	33,272	1,109
United Arab Emirates	0	0	0	0	0	0	0	613	613	20
Other OPEC	**0**	**0**	**0**	**0**	**0**	**971**	**0**	**11,761**	**61,754**	**2,058**
Ecuador	0	0	0	0	0	0	0	178	3,449	115
Gabon	0	0	0	0	0	0	0	0	954	32
Indonesia	0	0	0	0	0	0	0	647	3,375	113
Nigeria	0	0	0	0	0	0	0	933	26,923	897
Venezuela	0	0	0	0	0	971	0	10,003	27,053	902
Non OPEC	**21**	**207**	**827**	**0**	**203**	**486**	**238**	**36,087**	**110,808**	**3,694**
Angola	0	0	0	0	0	0	0	0	9,625	321
Argentina	0	0	0	0	0	0	0	189	595	20
Australia	0	0	0	0	0	0	0	57	1,421	47
Bahama Islands	0	0	0	0	0	0	0	245	245	8
Belgium	0	0	0	0	0	0	0	466	466	16
Brazil	0	0	0	0	0	0	2	2,194	2,194	73
Brunei	0	0	0	0	0	0	0	0	493	16
Bulgaria	0	0	0	0	0	0	0	190	190	6
Cameroon	0	0	0	0	0	0	0	0	1,644	55
Canada	21	150	52	0	58	306	172	8,447	28,159	939
China, People's Republic of	0	0	0	0	0	0	0	0	2,622	87
Colombia	0	0	0	0	0	0	0	505	4,413	147
Egypt	0	0	0	0	0	0	1	223	905	30
France	0	0	74	0	0	0	0	94	94	3
Germany, FR (W)	0	0	0	0	0	0	7	263	263	9
Ghana	0	0	0	0	0	0	0	163	163	5
Greece	0	0	0	0	0	0	0	318	318	11
India	0	0	274	0	0	0	0	549	549	18
Italy	0	0	26	0	0	0	0	458	458	15
Japan	0	0	0	0	0	0	3	51	51	2
Korea, Republic of	0	0	36	0	0	0	0	36	36	1
Mexico	0	33	0	0	0	9	3	1,674	21,433	714
Netherlands	0	7	0	0	0	0	5	1,633	1,633	54
Netherlands Antilles	0	0	0	0	0	0	0	1,057	1,057	35
Norway	0	0	0	0	0	0	0	819	4,388	146
Oman	0	0	0	0	0	0	0	0	2,111	70
Peru	0	0	0	0	0	0	0	529	529	18
Puerto Rico	0	0	237	0	145	0	42	975	975	33
Romania	0	0	0	0	0	0	0	1,573	1,573	52
Spain	0	0	20	0	0	166	0	2,107	2,107	70
Sweden	0	0	21	0	0	0	0	21	21	1
Syria	0	0	0	0	0	0	0	238	824	27
Thailand	0	0	0	0	0	0	0	0	654	22
Trinidad and Tobago	0	17	0	0	0	5	0	783	2,847	95
Turkey	0	0	0	0	0	0	0	897	897	30
United Kingdom	0	0	0	0	0	0	0	1,256	5,729	191
U.S.S.R.	0	0	0	0	0	0	0	2,052	2,052	68
Virgin Islands	0	0	37	0	0	0	0	5,698	5,698	190
Zaire	0	0	0	0	0	0	0	0	1,049	35
Other	0	0	50	0	0	0	3	327	327	11
Total	**21**	**207**	**2,330**	**1,249**	**203**	**1,457**	**238**	**57,473**	**238,409**	**7,947**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**8,964**	**381**	**706**	**0**	**323**	**0**	**450**	**711**	**281**	**260**	**1,252**
Algeria	0	381	706	0	0	0	227	711	281	0	992
Iraq	1,023	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,941	0	0	0	323	0	223	0	0	260	260
Other OPEC	**16,674**	**0**	**492**	**0**	**1,830**	**647**	**3,036**	**640**	**0**	**2,181**	**2,821**
Ecuador	750	0	0	0	0	0	0	0	0	178	178
Nigeria	13,085	0	0	0	0	0	233	640	0	60	700
Venezuela	2,839	0	492	0	1,830	647	2,803	0	0	1,943	1,943
Non OPEC	**12,406**	**161**	**2,499**	**2,142**	**6,238**	**1,204**	**3,042**	**1,653**	**2,540**	**3,652**	**7,845**
Angola	1,789	0	0	0	0	0	0	0	0	0	0
Argentina	406	0	0	189	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	245	0	0	0	0
Belgium	0	0	306	0	0	0	0	160	0	0	160
Brazil	0	0	0	232	1,429	0	0	516	0	15	531
Bulgaria	0	0	0	0	0	0	190	0	0	0	0
Canada	1,851	161	3	0	1,263	291	1,106	0	0	312	312
China, People's Republic of	737	0	0	0	0	0	0	0	0	0	0
Colombia	525	0	0	0	0	0	0	0	0	505	505
Egypt	682	0	222	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	256	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	163	0	0	163
Greece	0	0	0	0	0	0	0	318	0	0	318
Italy	0	0	51	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,878	0	0	0	0	0	404	0	0	0	0
Netherlands	0	0	0	7	780	0	0	0	338	0	338
Netherlands Antilles	0	0	0	0	246	0	0	0	0	563	563
Norway	2,576	0	273	0	0	0	0	0	546	0	546
Peru	0	0	0	0	0	0	0	0	198	331	529
Puerto Rico	0	0	55	496	0	0	0	0	0	0	0
Romania	0	0	0	1,089	484	0	0	0	0	0	0
Spain	0	0	220	0	517	419	0	0	374	0	374
Trinidad and Tobago	0	0	0	0	0	0	199	0	0	562	562
Turkey	0	0	0	0	0	0	0	0	0	481	481
United Kingdom	611	0	0	0	235	0	0	0	1,019	2	1,021
U.S.S.R.	0	0	0	0	0	0	0	0	0	303	303
Virgin Islands	0	0	1,113	129	1,284	494	898	496	65	408	969
Zaire	351	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	170	170
Total	**38,044**	**542**	**3,697**	**2,142**	**8,391**	**1,851**	**6,528**	**3,004**	**2,821**	**6,093**	**11,918**

See footnotes at end of table.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,112**	**12,076**	**403**
Algeria	0	0	0	0	0	0	0	2,306	2,306	77
Iraq	0	0	0	0	0	0	0	0	1,023	34
Saudi Arabia	0	0	0	0	0	0	0	806	8,747	292
Other OPEC	**0**	**0**	**0**	**0**	**0**	**939**	**0**	**9,765**	**26,439**	**881**
Ecuador	0	0	0	0	0	0	0	178	928	31
Nigeria	0	0	0	0	0	0	0	933	14,018	467
Venezuela	0	0	0	0	0	939	0	8,654	11,493	383
Non OPEC	**21**	**9**	**243**	**0**	**175**	**434**	**53**	**24,066**	**36,472**	**1,216**
Angola	0	0	0	0	0	0	0	0	1,789	60
Argentina	0	0	0	0	0	0	0	189	595	20
Bahama Islands	0	0	0	0	0	0	0	245	245	8
Belgium	0	0	0	0	0	0	0	466	466	16
Brazil	0	0	0	0	0	0	2	2,194	2,194	73
Bulgaria	0	0	0	0	0	0	0	190	190	6
Canada	21	9	6	0	30	263	13	3,478	5,329	178
China, People's Republic of	0	0	0	0	0	0	0	0	737	25
Colombia	0	0	0	0	0	0	0	505	1,030	34
Egypt	0	0	0	0	0	0	1	223	905	30
Germany, FR (W)	0	0	0	0	0	0	5	261	261	9
Ghana	0	0	0	0	0	0	0	163	163	5
Greece	0	0	0	0	0	0	0	318	318	11
Italy	0	0	0	0	0	0	0	51	51	2
Japan	0	0	0	0	0	0	3	3	3	(s)
Mexico	0	0	0	0	0	0	0	404	3,282	109
Netherlands	0	0	0	0	0	0	0	1,125	1,125	38
Netherlands Antilles	0	0	0	0	0	0	0	809	809	27
Norway	0	0	0	0	0	0	0	819	3,395	113
Peru	0	0	0	0	0	0	0	529	529	18
Puerto Rico	0	0	237	0	145	0	27	960	960	32
Romania	0	0	0	0	0	0	0	1,573	1,573	52
Spain	0	0	0	0	0	166	0	1,696	1,696	57
Trinidad and Tobago	0	0	0	0	0	5	0	766	766	26
Turkey	0	0	0	0	0	0	0	481	481	16
United Kingdom	0	0	0	0	0	0	0	1,256	1,867	62
U.S.S.R.	0	0	0	0	0	0	0	303	303	10
Virgin Islands	0	0	0	0	0	0	0	4,887	4,887	163
Zaire	0	0	0	0	0	0	0	0	351	12
Other	0	0	0	0	0	0	2	172	172	6
Total	**21**	**9**	**243**	**0**	**175**	**1,373**	**53**	**36,943**	**74,987**	**2,500**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**5,733**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	357	0	0	0	0	0	0	0	0	0	0
Iraq	1,546	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	3,830	0	0	0	0	0	0	0	0	0	0
Other OPEC	**9,997**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	1,189	0	0	0	0	0	0	0	0	0	0
Indonesia	325	0	0	0	0	0	0	0	0	0	0
Nigeria	5,963	0	0	0	0	0	0	0	0	0	0
Venezuela	2,520	0	0	0	0	0	0	0	0	0	0
Non OPEC	**21,655**	**2,539**	**0**	**0**	**160**	**70**	**497**	**47**	**1**	**32**	**80**
Cameroon	848	0	0	0	0	0	0	0	0	0	0
Canada	14,939	2,539	0	0	160	70	497	47	1	32	80
Colombia	495	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,129	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,116	0	0	0	0	0	0	0	0	0	0
United Kingdom	1,817	0	0	0	0	0	0	0	0	0	0
Zaire	311	0	0	0	0	0	0	0	0	0	0
Total	**37,385**	**2,539**	**0**	**0**	**160**	**70**	**497**	**47**	**1**	**32**	**80**

See footnotes at end of table.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,733**	**191**
Algeria	0	0	0	0	0	0	0	0	357	12
Iraq	0	0	0	0	0	0	0	0	1,546	52
Saudi Arabia	0	0	0	0	0	0	0	0	3,830	128
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9,997**	**333**
Ecuador	0	0	0	0	0	0	0	0	1,189	40
Indonesia	0	0	0	0	0	0	0	0	325	11
Nigeria	0	0	0	0	0	0	0	0	5,963	199
Venezuela	0	0	0	0	0	0	0	0	2,520	84
Non OPEC	**0**	**63**	**20**	**0**	**28**	**42**	**40**	**3,539**	**25,194**	**840**
Cameroon	0	0	0	0	0	0	0	0	848	28
Canada	0	63	20	0	28	42	38	3,537	18,476	616
Colombia	0	0	0	0	0	0	0	0	495	17
Germany, FR (W)	0	0	0	0	0	0	2	2	2	(s)
Mexico	0	0	0	0	0	0	0	0	2,129	71
Trinidad and Tobago	0	0	0	0	0	0	0	0	1,116	37
United Kingdom	0	0	0	0	0	0	0	0	1,817	61
Zaire	0	0	0	0	0	0	0	0	311	10
Total	**0**	**63**	**20**	**0**	**28**	**42**	**40**	**3,539**	**40,924**	**1,364**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**41,525**	**521**	**3,120**	**0**	**0**	**120**	**0**	**0**	**0**	**0**	**0**
Algeria	1,393	521	339	0	0	0	0	0	0	0	0
Iraq	12,378	0	445	0	0	0	0	0	0	0	0
Kuwait	8,135	0	0	0	0	0	0	0	0	0	0
Qatar	767	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	18,852	0	1,723	0	0	120	0	0	0	0	0
United Arab Emirates	0	0	613	0	0	0	0	0	0	0	0
Other OPEC	**20,079**	**0**	**1,111**	**240**	**491**	**122**	**0**	**0**	**0**	**0**	**0**
Ecuador	394	0	0	0	0	0	0	0	0	0	0
Gabon	954	0	0	0	0	0	0	0	0	0	0
Indonesia	98	0	647	0	0	0	0	0	0	0	0
Nigeria	6,942	0	0	0	0	0	0	0	0	0	0
Venezuela	11,691	0	464	240	491	122	0	0	0	0	0
Non OPEC	**33,182**	**1,108**	**3,754**	**278**	**0**	**521**	**0**	**0**	**0**	**584**	**584**
Angola	7,836	0	0	0	0	0	0	0	0	0	0
Australia	200	0	0	0	0	0	0	0	0	0	0
Cameroon	796	0	0	0	0	0	0	0	0	0	0
Canada	0	0	288	0	0	0	0	0	0	0	0
China, People's Republic of	659	0	0	0	0	0	0	0	0	0	0
Colombia	2,888	0	0	0	0	0	0	0	0	0	0
France	0	20	0	0	0	0	0	0	0	0	0
India	0	0	275	0	0	0	0	0	0	0	0
Italy	0	0	182	0	0	0	0	0	0	199	199
Japan	0	48	0	0	0	0	0	0	0	0	0
Mexico	14,752	1,040	0	0	0	185	0	0	0	0	0
Netherlands	0	0	496	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	248	0	0	0	0	0	0	0
Norway	993	0	0	0	0	0	0	0	0	0	0
Oman	1,092	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	391	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	586	0	0	0	0	0	0	0	0	238	238
Trinidad and Tobago	948	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	269	0	0	0	0	0	0	147	147
United Kingdom	2,045	0	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,749	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	30	0	336	0	0	0	0	0
Zaire	387	0	0	0	0	0	0	0	0	0	0
Other	0	0	104	0	0	0	0	0	0	0	0
Total	**94,786**	**1,629**	**7,985**	**518**	**491**	**763**	**0**	**0**	**0**	**584**	**584**

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**1,503**	**1,249**	**0**	**0**	**0**	**6,513**	**48,038**	**1,601**
Algeria	0	0	1,503	1,249	0	0	0	3,612	5,005	167
Iraq	0	0	0	0	0	0	0	445	12,823	427
Kuwait	0	0	0	0	0	0	0	0	8,135	271
Qatar	0	0	0	0	0	0	0	0	767	26
Saudi Arabia	0	0	0	0	0	0	0	1,843	20,695	690
United Arab Emirates	0	0	0	0	0	0	0	613	613	20
Other OPEC	**0**	**0**	**0**	**0**	**0**	**32**	**0**	**1,996**	**22,075**	**736**
Ecuador	0	0	0	0	0	0	0	0	394	13
Gabon	0	0	0	0	0	0	0	0	954	32
Indonesia	0	0	0	0	0	0	0	647	745	25
Nigeria	0	0	0	0	0	0	0	0	6,942	231
Venezuela	0	0	0	0	0	32	0	1,349	13,040	435
Non OPEC	**0**	**119**	**528**	**0**	**0**	**9**	**21**	**6,922**	**40,104**	**1,337**
Angola	0	0	0	0	0	0	0	0	7,836	261
Australia	0	0	0	0	0	0	0	0	200	7
Cameroon	0	0	0	0	0	0	0	0	796	27
Canada	0	62	26	0	0	0	0	376	376	13
China, People's Republic of	0	0	0	0	0	0	0	0	659	22
Colombia	0	0	0	0	0	0	0	0	2,888	96
France	0	0	74	0	0	0	0	94	94	3
India	0	0	274	0	0	0	0	549	549	18
Italy	0	0	26	0	0	0	0	407	407	14
Japan	0	0	0	0	0	0	0	48	48	2
Mexico	0	33	0	0	0	9	0	1,267	16,019	534
Netherlands	0	7	0	0	0	0	5	508	508	17
Netherlands Antilles	0	0	0	0	0	0	0	248	248	8
Norway	0	0	0	0	0	0	0	0	993	33
Oman	0	0	0	0	0	0	0	0	1,092	36
Puerto Rico	0	0	0	0	0	0	15	15	15	1
Spain	0	0	20	0	0	0	0	411	411	14
Sweden	0	0	21	0	0	0	0	21	21	1
Syria	0	0	0	0	0	0	0	238	824	27
Trinidad and Tobago	0	17	0	0	0	0	0	17	965	32
Turkey	0	0	0	0	0	0	0	416	416	14
United Kingdom	0	0	0	0	0	0	0	0	2,045	68
U.S.S.R.	0	0	0	0	0	0	0	1,749	1,749	58
Virgin Islands	0	0	37	0	0	0	0	403	403	13
Zaire	0	0	0	0	0	0	0	0	387	13
Other	0	0	50	0	0	0	1	155	155	5
Total	**0**	**119**	**2,031**	**1,249**	**0**	**41**	**21**	**15,431**	**110,217**	**3,674**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	**2,043**	**152**	**0**	**0**	**45**	**0**	**67**	**0**	**0**	**2**	**2**
Canada	2,043	152	0	0	45	0	67	0	0	2	2
Total	**2,043**	**152**	**0**	**0**	**45**	**0**	**67**	**0**	**0**	**2**	**2**
					PAD District V						
Other OPEC	**3,243**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	938	0	0	0	0	0	0	0	0	0	0
Indonesia	2,305	0	0	0	0	0	0	0	0	0	0
Non OPEC	**5,435**	**207**	**50**	**169**	**278**	**159**	**197**	**0**	**57**	**0**	**57**
Australia	1,164	0	0	0	0	0	0	0	57	0	57
Brunei	493	0	0	0	0	0	0	0	0	0	0
Canada	879	207	50	0	39	159	197	0	0	0	0
China, People's Republic of	1,226	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0	0
Oman	1,019	0	0	0	0	0	0	0	0	0	0
Thailand	654	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	169	239	0	0	0	0	0	0
Total	**8,678**	**207**	**50**	**169**	**278**	**159**	**197**	**0**	**57**	**0**	**57**

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products Total	Crude Oil and Products Daily Average
PAD District IV										
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**83**	**349**	**2,392**	**80**
Canada	0	0	0	0	0	0	83	349	2,392	80
Total	**0**	**0**	**0**	**0**	**0**	**0**	**83**	**349**	**2,392**	**80**
PAD District V										
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,243**	**108**
Ecuador	0	0	0	0	0	0	0	0	938	31
Indonesia	0	0	0	0	0	0	0	0	2,305	77
Non OPEC	**0**	**16**	**36**	**0**	**0**	**1**	**41**	**1,211**	**6,646**	**222**
Australia	0	0	0	0	0	0	0	57	1,221	41
Brunei	0	0	0	0	0	0	0	0	493	16
Canada	0	16	0	0	0	1	38	707	1,586	53
China, People's Republic of	0	0	0	0	0	0	0	0	1,226	41
Korea, Republic of	0	0	36	0	0	0	0	36	36	1
Mexico	0	0	0	0	0	0	3	3	3	(s)
Oman	0	0	0	0	0	0	0	0	1,019	34
Thailand	0	0	0	0	0	0	0	0	654	22
Virgin Islands	0	0	0	0	0	0	0	408	408	14
Total	**0**	**16**	**36**	**0**	**0**	**1**	**41**	**1,211**	**9,889**	**330**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**491,915**	**8,272**	**26,110**	**91**	**9,622**	**2,380**	**4,407**	**10,308**	**1,378**	**848**	**12,534**
Algeria	15,560	6,369	6,402	0	217	0	3,407	10,308	1,378	29	11,715
Iraq	120,078	0	2,380	0	0	0	0	0	0	0	0
Kuwait	42,680	621	0	0	0	169	0	0	0	0	0
Qatar	767	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	305,737	343	16,275	91	9,405	2,211	1,000	0	0	819	819
United Arab Emirates	7,093	939	1,053	0	0	0	0	0	0	0	0
Other OPEC	**420,291**	**2,300**	**13,140**	**2,610**	**19,637**	**8,040**	**27,310**	**6,743**	**1,428**	**24,632**	**32,803**
Ecuador	23,378	0	0	0	0	0	0	0	37	2,019	2,056
Gabon	10,620	0	0	0	0	0	0	166	198	0	364
Indonesia	40,317	0	1,146	0	0	0	0	3,453	0	371	3,824
Nigeria	217,474	0	431	0	0	0	233	1,977	669	60	2,706
Venezuela	128,502	2,300	11,563	2,610	19,637	8,040	27,077	1,147	524	22,182	23,853
Non OPEC	**661,762**	**37,525**	**59,330**	**12,527**	**71,033**	**18,521**	**51,634**	**28,296**	**37,896**	**58,170**	**124,362**
Angola	70,774	0	0	0	0	0	0	978	338	0	1,316
Argentina	2,900	0	37	481	778	0	273	0	1,993	0	1,993
Australia	6,811	96	0	0	286	0	100	244	292	0	536
Bahama Islands	0	0	1	0	0	0	245	51	3,127	5,236	8,414
Belgium	0	0	2,152	0	665	0	726	160	208	193	561
Benin	690	0	0	0	0	0	0	0	0	0	0
Brazil	0	243	0	490	14,088	0	1,927	4,758	2,256	34	7,048
Brunei	3,006	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	190	0	0	0	0
Cameroon	8,898	0	0	0	0	0	0	0	1,977	0	1,977
Canada	169,830	29,754	3,322	550	13,181	2,933	16,835	837	2,654	4,312	7,803
China, People's Republic of	19,498	0	0	0	1,349	0	0	0	0	0	0
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0
Colombia	34,527	0	170	0	0	0	357	0	400	9,146	9,546
Congo	1,883	0	0	0	0	0	0	1,039	0	0	1,039
Denmark	0	0	0	0	0	0	0	0	1,045	0	1,045
Egypt	2,740	0	677	0	0	0	0	0	0	0	0
France	0	364	157	255	2,181	0	0	0	616	194	810
Germany, DR (E)	0	0	0	0	0	0	1,839	0	0	203	203
Germany, FR (W)	0	183	510	0	0	0	533	0	0	0	0
Ghana	0	0	0	0	0	0	0	483	0	0	483
Greece	0	0	251	0	795	756	0	1,341	634	321	2,296
Guatemala	435	0	0	0	0	0	0	0	0	0	0
India	183	0	6,517	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Israel	0	0	402	0	0	0	0	0	0	0	0
Italy	1,063	41	2,168	22	3,234	0	0	0	356	199	555
Japan	0	261	0	0	0	425	15	0	0	0	0
Korea, Republic of	0	0	332	0	0	186	163	0	0	0	0
Malaysia	9,157	0	0	0	0	0	0	0	0	0	0
Mexico	198,183	5,811	0	0	2	2,996	779	30	11	2,571	2,612
Netherlands	0	0	3,047	42	7,633	0	447	328	1,071	531	1,930
Netherlands Antilles	0	0	475	741	1,319	0	872	190	587	5,731	6,508
Norway	35,469	0	273	0	0	0	0	0	1,988	0	1,988
Oman	5,709	0	401	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	447	447
Peru	359	0	604	0	0	0	0	0	2,295	5,959	8,254
Puerto Rico	0	0	706	2,926	0	0	0	8	0	0	8
Romania	0	0	0	3,695	1,669	0	251	0	366	376	742
Singapore	0	0	829	0	0	687	0	2,881	0	265	3,146
Spain	0	0	4,154	0	8,158	2,541	577	0	737	817	1,554
Sweden	0	0	898	0	0	0	434	0	1,714	0	1,714
Syria	2,451	0	733	0	0	0	0	0	0	961	961
Thailand	4,886	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	20,260	0	0	0	0	532	1,072	0	0	4,315	4,315
Tunisia	1,767	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	1,746	0	0	0	0	0	0	1,178	1,178
United Kingdom	45,965	518	248	28	4,206	0	3,073	311	5,541	2,170	8,022
U.S.S.R.	0	0	9,270	0	0	0	3,236	520	139	728	1,387
Virgin Islands	0	0	18,753	3,267	10,361	7,453	17,384	13,708	7,080	12,113	32,901
Zaire	7,257	0	0	0	0	0	0	101	0	0	101
Other	7,061	173	497	30	1,128	12	306	328	250	170	748
Total	**1,573,968**	**48,097**	**98,580**	**15,228**	**100,292**	**28,941**	**83,351**	**45,347**	**40,702**	**83,650**	**169,699**

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**44**	**10,721**	**16,414**	**0**	**0**	**0**	**90,595**	**582,510**	**2,134**
Algeria	0	44	10,721	16,414	0	0	0	55,289	70,849	260
Iraq	0	0	0	0	0	0	0	2,380	122,458	449
Kuwait	0	0	0	0	0	0	0	790	43,470	159
Qatar	0	0	0	0	0	0	0	0	767	3
Saudi Arabia	0	0	0	0	0	0	0	30,144	335,881	1,230
United Arab Emirates	0	0	0	0	0	0	0	1,992	9,085	33
Other OPEC	**0**	**5**	**1,565**	**145**	**22**	**5,827**	**0**	**113,404**	**533,695**	**1,955**
Ecuador	0	0	0	0	0	0	0	2,056	25,434	93
Gabon	0	0	0	0	0	0	0	364	10,984	40
Indonesia	0	0	717	0	0	0	0	5,687	46,004	169
Nigeria	0	0	0	145	22	0	0	3,537	221,011	810
Venezuela	0	5	848	0	0	5,827	0	101,760	230,262	843
Non OPEC	**1,421**	**1,926**	**9,131**	**83**	**3,130**	**2,811**	**3,499**	**396,933**	**1,058,695**	**3,878**
Angola	0	0	0	0	0	0	0	1,316	72,090	264
Argentina	0	168	0	83	0	0	0	3,813	6,713	25
Australia	0	0	0	0	0	0	0	1,018	7,829	29
Bahama Islands	0	0	0	0	0	0	0	8,660	8,660	32
Belgium	0	0	0	0	0	0	0	4,104	4,104	15
Benin	0	0	0	0	0	0	0	0	690	3
Brazil	0	32	0	0	64	0	52	23,944	23,944	88
Brunei	0	0	0	0	0	0	0	0	3,006	11
Bulgaria	0	0	0	0	0	0	0	190	190	1
Cameroon	0	0	0	0	0	0	0	1,977	10,875	40
Canada	369	1,497	667	0	566	1,216	1,327	80,020	249,850	915
China, People's Republic of	0	29	0	0	52	0	46	1,476	20,974	77
China, Taiwan	0	0	0	0	7	0	0	7	7	(s)
Colombia	0	0	0	0	0	0	0	10,073	44,600	163
Congo	0	0	0	0	0	0	0	1,039	2,922	11
Denmark	0	0	0	0	0	0	0	1,045	1,045	4
Egypt	0	0	457	0	0	0	12	1,146	3,886	14
France	6	0	249	0	0	0	0	4,022	4,022	15
Germany, DR (E)	0	0	0	0	0	0	0	2,042	2,042	7
Germany, FR (W)	0	0	28	0	0	0	69	1,323	1,323	5
Ghana	0	0	0	0	0	0	0	483	483	2
Greece	0	0	0	0	0	0	0	4,098	4,098	15
Guatemala	0	0	0	0	0	0	0	0	435	2
India	0	0	3,387	0	0	0	0	9,904	10,087	37
Ireland	0	0	0	0	0	0	0	221	221	1
Israel	0	0	0	0	0	0	0	402	402	1
Italy	0	9	405	0	0	0	47	6,481	7,544	28
Japan	0	8	172	0	31	0	187	1,099	1,099	4
Korea, Republic of	0	0	143	0	0	0	0	824	824	3
Malaysia	0	0	0	0	0	0	0	0	9,157	34
Mexico	0	33	0	0	0	68	1,193	13,494	211,677	775
Netherlands	0	32	333	0	76	0	24	13,564	13,564	50
Netherlands Antilles	0	0	0	0	0	502	0	10,417	10,417	38
Norway	0	0	0	0	0	0	0	2,261	37,730	138
Oman	0	0	0	0	0	0	0	401	6,110	22
Panama	0	0	0	0	0	0	0	447	447	2
Peru	0	0	0	0	0	0	0	8,858	9,217	34
Puerto Rico	0	82	2,142	0	2,319	0	491	8,674	8,674	32
Romania	0	0	0	0	0	0	0	6,357	6,357	23
Singapore	0	0	0	0	0	0	0	4,662	4,662	17
Spain	0	0	501	0	0	1,000	0	18,485	18,485	68
Sweden	0	0	42	0	0	0	0	3,088	3,088	11
Syria	0	0	0	0	0	0	0	1,694	4,145	15
Thailand	0	0	0	0	0	0	0	0	4,886	18
Trinidad and Tobago	134	36	0	0	0	25	0	6,114	26,374	97
Tunisia	0	0	0	0	0	0	0	0	1,767	6
Turkey	0	0	0	0	0	0	0	3,005	3,005	11
United Kingdom	0	0	180	0	0	0	2	16,277	62,242	228
U.S.S.R.	0	0	0	0	0	0	0	13,893	13,893	51
Virgin Islands	912	0	317	0	0	0	0	91,348	91,348	335
Zaire	0	0	0	0	0	0	0	101	7,358	27
Other	0	0	108	0	15	0	49	3,066	10,127	37
Total	**1,421**	**1,975**	**21,417**	**16,642**	**3,152**	**8,638**	**3,499**	**600,932**	**2,174,900**	**7,967**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**67,404**	**3,906**	**4,461**	**91**	**8,173**	**1,051**	**3,942**	**9,313**	**1,063**	**752**	**11,128**
Algeria	449	3,906	4,294	0	217	0	2,942	9,313	1,063	29	10,405
Iraq	8,651	0	0	0	0	0	0	0	0	0	0
Kuwait	2,467	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	55,837	0	167	91	7,956	1,051	1,000	0	0	723	723
Other OPEC	**129,030**	**1,081**	**3,516**	**0**	**18,248**	**6,079**	**26,954**	**3,362**	**1,428**	**24,033**	**28,823**
Ecuador	8,281	0	0	0	0	0	0	0	37	2,019	2,056
Gabon	2,380	0	0	0	0	0	0	166	198	0	364
Indonesia	0	0	250	0	0	0	0	429	0	371	800
Nigeria	97,270	0	0	0	0	0	233	1,977	669	60	2,706
Venezuela	21,099	1,081	3,266	0	18,248	6,079	26,721	790	524	21,583	22,897
Non OPEC	**120,217**	**2,299**	**26,190**	**10,713**	**64,808**	**10,434**	**47,421**	**24,842**	**37,568**	**55,769**	**118,179**
Angola	22,182	0	0	0	0	0	0	978	338	0	1,316
Argentina	2,068	0	0	380	379	0	273	0	1,993	0	1,993
Australia	0	0	0	0	286	0	100	0	0	0	0
Bahama Islands	0	0	0	0	0	0	245	51	3,127	5,236	8,414
Belgium	0	0	944	0	665	0	726	160	208	193	561
Brazil	0	0	0	259	13,791	0	1,927	4,758	2,256	34	7,048
Bulgaria	0	0	0	0	0	0	190	0	0	0	0
Cameroon	2,707	0	0	0	0	0	0	0	1,977	0	1,977
Canada	16,218	2,299	802	401	10,354	1,880	13,477	0	2,618	3,798	6,416
China, People's Republic of	5,693	0	0	0	0	0	0	0	0	0	0
Colombia	5,361	0	0	0	0	0	357	0	400	9,146	9,546
Congo	0	0	0	0	0	0	0	1,039	0	0	1,039
Denmark	0	0	0	0	0	0	0	0	1,045	0	1,045
Egypt	2,016	0	222	0	0	0	0	0	0	0	0
France	0	0	0	255	2,181	0	0	0	616	194	810
Germany, DR (E)	0	0	0	0	0	0	1,839	0	0	203	203
Germany, FR (W)	0	0	256	0	0	0	533	0	0	0	0
Ghana	0	0	0	0	0	0	0	483	0	0	483
Greece	0	0	0	0	795	0	0	1,341	634	321	2,296
India	0	0	1,076	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	221	0	221
Israel	0	0	402	0	0	0	0	0	0	0	0
Italy	1,063	0	776	22	3,234	0	0	0	356	0	356
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	23,635	0	0	0	0	370	779	30	11	1,871	1,912
Netherlands	0	0	2,014	28	7,388	0	447	328	1,071	531	1,930
Netherlands Antilles	0	0	0	0	1,319	0	872	190	587	5,731	6,508
Norway	26,621	0	273	0	0	0	0	0	1,988	0	1,988
Panama	0	0	0	0	0	0	0	0	0	447	447
Peru	359	0	0	0	0	0	0	0	2,295	5,959	8,254
Puerto Rico	0	0	706	2,926	0	0	0	8	0	0	8
Romania	0	0	0	3,653	1,669	0	251	0	366	376	742
Singapore	0	0	521	0	0	0	0	995	0	0	995
Spain	0	0	2,517	0	8,158	1,780	571	0	737	817	1,554
Sweden	0	0	311	0	0	0	434	0	1,714	0	1,714
Syria	1,289	0	0	0	0	0	0	0	0	723	723
Trinidad and Tobago	430	0	0	0	0	97	1,072	0	0	4,315	4,315
Turkey	0	0	0	0	0	0	0	0	0	693	693
United Kingdom	8,726	0	164	28	3,968	0	3,073	311	5,541	2,170	8,022
U.S.S.R.	0	0	0	0	0	0	3,236	229	139	728	1,096
Virgin Islands	0	0	15,027	2,731	9,493	6,295	16,713	13,708	7,080	12,113	32,901
Zaire	1,849	0	0	0	0	0	0	101	0	0	101
Other	0	0	179	30	1,128	12	306	132	250	170	552
Total	**316,651**	**7,286**	**34,167**	**10,804**	**91,229**	**17,564**	**78,317**	**37,517**	**40,059**	**80,554**	**158,130**

See footnotes at end of table.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32,752**	**100,156**	**367**
Algeria	0	0	0	0	0	0	0	21,764	22,213	81
Iraq	0	0	0	0	0	0	0	0	8,651	32
Kuwait	0	0	0	0	0	0	0	0	2,467	9
Saudi Arabia	0	0	0	0	0	0	0	10,988	66,825	245
Other OPEC	**0**	**5**	**0**	**145**	**0**	**5,564**	**0**	**90,415**	**219,445**	**804**
Ecuador	0	0	0	0	0	0	0	2,056	10,337	38
Gabon	0	0	0	0	0	0	0	364	2,744	10
Indonesia	0	0	0	0	0	0	0	1,050	1,050	4
Nigeria	0	0	0	145	0	0	0	3,084	100,354	368
Venezuela	0	5	0	0	0	5,564	0	83,861	104,960	384
Non OPEC	**1,084**	**83**	**1,729**	**0**	**2,807**	**2,585**	**1,952**	**290,284**	**410,501**	**1,504**
Angola	0	0	0	0	0	0	0	1,316	23,498	86
Argentina	0	0	0	0	0	0	0	3,025	5,093	19
Australia	0	0	0	0	0	0	0	386	386	1
Bahama Islands	0	0	0	0	0	0	0	8,659	8,659	32
Belgium	0	0	0	0	0	0	0	2,896	2,896	11
Brazil	0	0	0	0	64	0	12	23,101	23,101	85
Bulgaria	0	0	0	0	0	0	0	190	190	1
Cameroon	0	0	0	0	0	0	0	1,977	4,684	17
Canada	369	55	106	0	333	1,058	84	37,634	53,852	197
China, People's Republic of	0	0	0	0	0	0	46	46	5,739	21
Colombia	0	0	0	0	0	0	0	9,903	15,264	56
Congo	0	0	0	0	0	0	0	1,039	1,039	4
Denmark	0	0	0	0	0	0	0	1,045	1,045	4
Egypt	0	0	0	0	0	0	8	230	2,246	8
France	0	0	34	0	0	0	0	3,280	3,280	12
Germany, DR (E)	0	0	0	0	0	0	0	2,042	2,042	7
Germany, FR (W)	0	0	0	0	0	0	63	852	852	3
Ghana	0	0	0	0	0	0	0	483	483	2
Greece	0	0	0	0	0	0	0	3,091	3,091	11
India	0	0	0	0	0	0	0	1,076	1,076	4
Ireland	0	0	0	0	0	0	0	221	221	1
Israel	0	0	0	0	0	0	0	402	402	1
Italy	0	9	0	0	0	0	25	4,422	5,485	20
Japan	0	8	6	0	0	0	52	66	66	(s)
Mexico	0	0	0	0	0	0	1,170	4,231	27,866	102
Netherlands	0	11	2	0	76	0	2	11,898	11,898	44
Netherlands Antilles	0	0	0	0	0	502	0	9,201	9,201	34
Norway	0	0	0	0	0	0	0	2,261	28,882	106
Panama	0	0	0	0	0	0	0	447	447	2
Peru	0	0	0	0	0	0	0	8,254	8,613	32
Puerto Rico	0	0	1,581	0	2,319	0	464	8,004	8,004	29
Romania	0	0	0	0	0	0	0	6,315	6,315	23
Singapore	0	0	0	0	0	0	0	1,516	1,516	6
Spain	0	0	0	0	0	1,000	0	15,580	15,580	57
Sweden	0	0	0	0	0	0	0	2,459	2,459	9
Syria	0	0	0	0	0	0	0	723	2,012	7
Trinidad and Tobago	134	0	0	0	0	25	0	5,643	6,073	22
Turkey	0	0	0	0	0	0	0	693	693	3
United Kingdom	0	0	0	0	0	0	0	15,255	23,981	88
U.S.S.R.	0	0	0	0	0	0	0	4,332	4,332	16
Virgin Islands	581	0	0	0	0	0	0	83,741	83,741	307
Zaire	0	0	0	0	0	0	0	101	1,950	7
Other	0	0	0	0	15	0	26	2,248	2,248	8
Total	**1,084**	**88**	**1,729**	**145**	**2,807**	**8,149**	**1,952**	**413,451**	**730,102**	**2,674**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**53,401**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	2,687	0	0	0	0	0	0	0	0	0	0
Iraq	16,042	0	0	0	0	0	0	0	0	0	0
Kuwait	1,505	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	33,167	0	0	0	0	0	0	0	0	0	0
Other OPEC	**58,568**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	5,295	0	0	0	0	0	0	0	0	0	0
Indonesia	1,933	0	0	0	0	0	0	0	0	0	0
Nigeria	41,285	0	0	0	0	0	0	0	0	0	0
Venezuela	10,055	0	0	0	0	0	0	0	0	0	0
Non OPEC	**171,798**	**24,171**	**0**	**0**	**1,062**	**795**	**1,820**	**833**	**36**	**458**	**1,327**
Angola	1,965	0	0	0	0	0	0	0	0	0	0
Cameroon	848	0	0	0	0	0	0	0	0	0	0
Canada	125,544	24,171	0	0	1,062	795	1,820	833	36	458	1,327
Colombia	2,902	0	0	0	0	0	0	0	0	0	0
Egypt	206	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	24,353	0	0	0	0	0	0	0	0	0	0
Norway	2,002	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	5,236	0	0	0	0	0	0	0	0	0	0
United Kingdom	4,347	0	0	0	0	0	0	0	0	0	0
Zaire	716	0	0	0	0	0	0	0	0	0	0
Other	3,679	0	0	0	0	0	0	0	0	0	0
Total	**283,767**	**24,171**	**0**	**0**	**1,062**	**795**	**1,820**	**833**	**36**	**458**	**1,327**

See footnotes at end of table.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**53,401**	**196**
Algeria	0	0	0	0	0	0	0	0	2,687	10
Iraq	0	0	0	0	0	0	0	0	16,042	59
Kuwait	0	0	0	0	0	0	0	0	1,505	6
Saudi Arabia	0	0	0	0	0	0	0	0	33,167	121
Other OPEC	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**45**	**58,613**	**215**
Ecuador	0	0	0	0	0	0	0	0	5,295	19
Indonesia	0	0	0	0	0	0	0	0	1,933	7
Nigeria	0	0	0	0	0	0	0	0	41,285	151
Venezuela	0	0	0	0	0	45	0	45	10,100	37
Non OPEC	**0**	**620**	**278**	**0**	**233**	**135**	**491**	**30,932**	**202,730**	**743**
Angola	0	0	0	0	0	0	0	0	1,965	7
Cameroon	0	0	0	0	0	0	0	0	848	3
Canada	0	620	278	0	233	135	473	30,914	156,458	573
Colombia	0	0	0	0	0	0	0	0	2,902	11
Egypt	0	0	0	0	0	0	0	0	206	1
Germany, FR (W)	0	0	0	0	0	0	3	3	3	(s)
Mexico	0	0	0	0	0	0	0	0	24,353	89
Norway	0	0	0	0	0	0	0	0	2,002	7
Trinidad and Tobago	0	0	0	0	0	0	0	0	5,236	19
United Kingdom	0	0	0	0	0	0	0	0	4,347	16
Zaire	0	0	0	0	0	0	0	0	716	3
Other	0	0	0	0	0	0	15	15	3,694	14
Total	**0**	**620**	**278**	**0**	**233**	**180**	**491**	**30,977**	**314,744**	**1,153**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**370,645**	**4,366**	**21,649**	**0**	**0**	**885**	**465**	**995**	**315**	**96**	**1,406**
Algeria	12,424	2,463	2,108	0	0	0	465	995	315	0	1,310
Iraq	94,920	0	2,380	0	0	0	0	0	0	0	0
Kuwait	38,708	621	0	0	0	0	0	0	0	0	0
Qatar	767	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	216,733	343	16,108	0	0	885	0	0	0	96	96
United Arab Emirates	7,093	939	1,053	0	0	0	0	0	0	0	0
Other OPEC	**199,988**	**1,219**	**9,270**	**2,610**	**909**	**1,639**	**0**	**357**	**0**	**544**	**901**
Ecuador	5,213	0	0	0	0	0	0	0	0	0	0
Gabon	8,240	0	0	0	0	0	0	0	0	0	0
Indonesia	10,268	0	896	0	0	0	0	0	0	0	0
Nigeria	78,919	0	431	0	0	0	0	0	0	0	0
Venezuela	97,348	1,219	7,943	2,610	909	1,639	0	357	0	544	901
Non OPEC	**313,178**	**7,802**	**32,291**	**1,482**	**208**	**5,305**	**677**	**487**	**0**	**1,676**	**2,163**
Angola	46,627	0	0	0	0	0	0	0	0	0	0
Argentina	832	0	37	101	206	0	0	0	0	0	0
Australia	200	96	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	1	0	0	0	0	0	0	0	0
Belgium	0	0	1,208	0	0	0	0	0	0	0	0
Benin	690	0	0	0	0	0	0	0	0	0	0
Brazil	0	243	0	231	0	0	0	0	0	0	0
Cameroon	5,343	0	0	0	0	0	0	0	0	0	0
Canada	3,128	31	2,181	0	0	0	0	0	0	54	54
China, People's Republic of	7,914	0	0	0	0	0	0	0	0	0	0
Colombia	26,264	0	170	0	0	0	0	0	0	0	0
Congo	1,883	0	0	0	0	0	0	0	0	0	0
Egypt	518	0	455	0	0	0	0	0	0	0	0
France	0	364	157	0	0	0	0	0	0	0	0
Germany, FR (W)	0	183	254	0	0	0	0	0	0	0	0
Greece	0	0	251	0	0	756	0	0	0	0	0
Guatemala	435	0	0	0	0	0	0	0	0	0	0
India	0	0	5,441	0	0	0	0	0	0	0	0
Italy	0	41	1,392	0	0	0	0	0	0	199	199
Japan	0	261	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	332	0	0	0	0	0	0	0	0
Malaysia	1,910	0	0	0	0	0	0	0	0	0	0
Mexico	150,195	5,811	0	0	2	2,414	0	0	0	700	700
Netherlands	0	0	1,033	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	475	741	0	0	0	0	0	0	0
Norway	6,846	0	0	0	0	0	0	0	0	0	0
Oman	1,904	0	401	0	0	0	0	0	0	0	0
Peru	0	0	402	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	42	0	0	0	0	0	0	0
Spain	0	0	1,637	0	0	761	6	0	0	0	0
Sweden	0	0	587	0	0	0	0	0	0	0	0
Syria	1,162	0	733	0	0	0	0	0	0	238	238
Trinidad and Tobago	14,594	0	0	0	0	216	0	0	0	0	0
Tunisia	1,767	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	1,746	0	0	0	0	0	0	485	485
United Kingdom	32,892	518	84	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	9,270	0	0	0	0	291	0	0	291
Virgin Islands	0	0	3,726	367	0	1,158	671	0	0	0	0
Zaire	4,692	0	0	0	0	0	0	0	0	0	0
Other	3,382	173	318	0	0	0	0	196	0	0	196
Total	**883,811**	**13,387**	**63,210**	**4,092**	**1,117**	**7,829**	**1,142**	**1,839**	**315**	**2,316**	**4,470**

See footnotes at end of table.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**44**	**10,721**	**16,414**	**0**	**0**	**0**	55,950	426,595	1,563
Algeria	0	44	10,721	16,414	0	0	0	33,525	45,949	168
Iraq	0	0	0	0	0	0	0	2,380	97,300	356
Kuwait	0	0	0	0	0	0	0	621	39,329	144
Qatar	0	0	0	0	0	0	0	0	767	3
Saudi Arabia	0	0	0	0	0	0	0	17,432	234,165	858
United Arab Emirates	0	0	0	0	0	0	0	1,992	9,085	33
Other OPEC	**0**	**0**	**1,565**	**0**	**22**	**218**	**0**	18,353	218,341	800
Ecuador	0	0	0	0	0	0	0	0	5,213	19
Gabon	0	0	0	0	0	0	0	0	8,240	30
Indonesia	0	0	717	0	0	0	0	1,613	11,881	44
Nigeria	0	0	0	0	22	0	0	453	79,372	291
Venezuela	0	0	848	0	0	218	0	16,287	113,635	416
Non OPEC	**337**	**1,111**	**6,837**	**83**	**0**	**68**	**264**	58,628	371,806	1,362
Angola	0	0	0	0	0	0	0	0	46,627	171
Argentina	0	168	0	83	0	0	0	595	1,427	5
Australia	0	0	0	0	0	0	0	96	296	1
Bahama Islands	0	0	0	0	0	0	0	1	1	(s)
Belgium	0	0	0	0	0	0	0	1,208	1,208	4
Benin	0	0	0	0	0	0	0	0	690	3
Brazil	0	32	0	0	0	0	40	546	546	2
Cameroon	0	0	0	0	0	0	0	0	5,343	20
Canada	0	739	283	0	0	0	0	3,288	6,416	24
China, People's Republic of	0	0	0	0	0	0	0	0	7,914	29
Colombia	0	0	0	0	0	0	0	170	26,434	97
Congo	0	0	0	0	0	0	0	0	1,883	7
Egypt	0	0	457	0	0	0	4	916	1,434	5
France	6	0	215	0	0	0	0	742	742	3
Germany, FR (W)	0	0	28	0	0	0	3	468	468	2
Greece	0	0	0	0	0	0	0	1,007	1,007	4
Guatemala	0	0	0	0	0	0	0	0	435	2
India	0	0	3,387	0	0	0	0	8,828	8,828	32
Italy	0	0	405	0	0	0	22	2,059	2,059	8
Japan	0	0	22	0	0	0	135	418	418	2
Korea, Republic of	0	0	0	0	0	0	0	332	332	1
Malaysia	0	0	0	0	0	0	0	0	1,910	7
Mexico	0	33	0	0	0	68	2	9,030	159,225	583
Netherlands	0	21	331	0	0	0	22	1,407	1,407	5
Netherlands Antilles	0	0	0	0	0	0	0	1,216	1,216	4
Norway	0	0	0	0	0	0	0	0	6,846	25
Oman	0	0	0	0	0	0	0	401	2,305	8
Peru	0	0	0	0	0	0	0	402	402	1
Puerto Rico	0	82	561	0	0	0	27	670	670	2
Romania	0	0	0	0	0	0	0	42	42	(s)
Spain	0	0	501	0	0	0	0	2,905	2,905	11
Sweden	0	0	42	0	0	0	0	629	629	2
Syria	0	0	0	0	0	0	0	971	2,133	8
Trinidad and Tobago	0	36	0	0	0	0	0	252	14,846	54
Tunisia	0	0	0	0	0	0	0	0	1,767	6
Turkey	0	0	0	0	0	0	0	2,312	2,312	8
United Kingdom	0	0	180	0	0	0	2	784	33,676	123
U.S.S.R.	0	0	0	0	0	0	0	9,561	9,561	35
Virgin Islands	331	0	317	0	0	0	0	6,570	6,570	24
Zaire	0	0	0	0	0	0	0	0	4,692	17
Other	0	0	108	0	0	0	7	802	4,184	15
Total	**337**	**1,155**	**19,123**	**16,497**	**22**	**286**	**264**	132,931	1,016,742	3,724

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
PAD District IV											
Non OPEC	**19,255**	**1,882**	**0**	**0**	**410**	**0**	**595**	**4**	**0**	**2**	**6**
Canada	19,255	1,882	0	0	410	0	595	4	0	2	6
Total	**19,255**	**1,882**	**0**	**0**	**410**	**0**	**595**	**4**	**0**	**2**	**6**
PAD District V											
Arab OPEC	**465**	**0**	**0**	**0**	**1,449**	**444**	**0**	**0**	**0**	**0**	**0**
Iraq	465	0	0	0	0	0	0	0	0	0	0
Kuwait	0	0	0	0	0	169	0	0	0	0	0
Saudi Arabia	0	0	0	0	1,449	275	0	0	0	0	0
Other OPEC	**32,705**	**0**	**354**	**0**	**480**	**322**	**356**	**3,024**	**0**	**55**	**3,079**
Ecuador	4,589	0	0	0	0	0	0	0	0	0	0
Indonesia	28,116	0	0	0	0	0	0	3,024	0	0	3,024
Venezuela	0	0	354	0	480	322	356	0	0	55	55
Non OPEC	**37,314**	**1,371**	**849**	**332**	**4,545**	**1,987**	**1,121**	**2,130**	**292**	**265**	**2,687**
Argentina	0	0	0	0	193	0	0	0	0	0	0
Australia	6,611	0	0	0	0	0	0	244	292	0	536
Brazil	0	0	0	0	297	0	0	0	0	0	0
Brunei	3,006	0	0	0	0	0	0	0	0	0	0
Canada	5,685	1,371	339	149	1,355	258	943	0	0	0	0
China, People's Republic of	5,891	0	0	0	1,349	0	0	0	0	0	0
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0
India	183	0	0	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	425	15	0	0	0	0
Korea, Republic of	0	0	0	0	0	186	163	0	0	0	0
Malaysia	7,247	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	212	0	0	0	0	0
Netherlands	0	0	0	14	245	0	0	0	0	0	0
Oman	3,805	0	0	0	0	0	0	0	0	0	0
Peru	0	0	202	0	0	0	0	0	0	0	0
Singapore	0	0	308	0	0	687	0	1,886	0	265	2,151
Thailand	4,886	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	219	0	0	0	0	0
United Kingdom	0	0	0	0	238	0	0	0	0	0	0
Virgin Islands	0	0	0	169	868	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**70,484**	**1,371**	**1,203**	**332**	**6,474**	**2,753**	**1,477**	**5,154**	**292**	**320**	**5,766**

See footnotes at end of table.

able 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products Total	Crude Oil and Products Daily Average
					PAD District IV					
lon OPEC	**0**	**1**	**0**	**0**	**0**	**0**	**557**	**3,451**	**22,706**	**83**
Canada	0	1	0	0	0	0	557	3,451	22,706	83
otal	**0**	**1**	**0**	**0**	**0**	**0**	**557**	**3,451**	**22,706**	**83**
					PAD District V					
rab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,893**	**2,358**	**9**
Iraq	0	0	0	0	0	0	0	0	465	2
Kuwait	0	0	0	0	0	0	0	169	169	1
Saudi Arabia	0	0	0	0	0	0	0	1,724	1,724	6
ther OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,591**	**37,296**	**137**
Ecuador	0	0	0	0	0	0	0	0	4,589	17
Indonesia	0	0	0	0	0	0	0	3,024	31,140	114
Venezuela	0	0	0	0	0	0	0	1,567	1,567	6
lon OPEC	**0**	**111**	**287**	**0**	**90**	**23**	**235**	**13,638**	**50,952**	**187**
Argentina	0	0	0	0	0	0	0	193	193	1
Australia	0	0	0	0	0	0	0	536	7,147	26
Brazil	0	0	0	0	0	0	0	297	297	1
Brunei	0	0	0	0	0	0	0	0	3,006	11
Canada	0	82	0	0	0	23	213	4,733	10,418	38
China, People's Republic of	0	29	0	0	52	0	0	1,430	7,321	27
China, Taiwan	0	0	0	0	7	0	0	7	7	(s)
India	0	0	0	0	0	0	0	0	183	1
Japan	0	0	144	0	31	0	0	615	615	2
Korea, Republic of	0	0	143	0	0	0	0	492	492	2
Malaysia	0	0	0	0	0	0	0	0	7,247	27
Mexico	0	0	0	0	0	0	21	233	233	1
Netherlands	0	0	0	0	0	0	0	259	259	1
Oman	0	0	0	0	0	0	0	0	3,805	14
Peru	0	0	0	0	0	0	0	202	202	1
Singapore	0	0	0	0	0	0	0	3,146	3,146	12
Thailand	0	0	0	0	0	0	0	0	4,886	18
Trinidad and Tobago	0	0	0	0	0	0	0	219	219	1
United Kingdom	0	0	0	0	0	0	0	238	238	1
Virgin Islands	0	0	0	0	0	0	0	1,037	1,037	4
Other	0	0	0	0	0	0	1	1	1	(s)
otal	**0**	**111**	**287**	**0**	**90**	**23**	**235**	**20,122**	**90,606**	**332**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, September 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**0**	**45**	**0**	**0**	**916**	**961**	**32**
Natural Gas Liquids	**43**	**388**	**276**	**0**	**238**	**944**	**31**
Pentanes Plus	4	7	16	0	0	27	1
Liquefied Petroleum Gases	39	382	260	0	238	918	31
Ethane/Ethylene	8	0	0	0	1	9	(s)
Propane/Propylene	17	228	160	0	234	640	21
Normal Butane/Butylene	13	154	100	0	2	269	9
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**667**	**459**	**9,940**	**7**	**6,685**	**17,759**	**592**
Finished Motor Gasoline	16	3	697	3	217	935	31
Naphtha-Type Jet Fuel	0	0	0	(s)	0	(s)	(s)
Kerosene-Type Jet Fuel	(s)	2	913	0	103	1,018	34
Kerosene	8	1	53	(s)	2	64	2
Distillate Fuel Oil	16	3	2,285	2	119	2,425	81
Residual Fuel Oil	44	15	1,302	(s)	2,762	4,122	137
Naphtha for Petrochemical Feedstock Use	8	3	211	0	34	255	8
Other Oils for Petrochemical Feedstock Use	0	34	351	0	321	707	24
Special Naphthas	209	5	265	(s)	40	518	17
Lubricants	171	37	218	1	90	516	17
Waxes	6	2	39	(s)	7	55	2
Petroleum Coke	178	280	3,597	0	2,972	7,026	234
Asphalt and Road Oil	1	44	2	(s)	14	62	2
Miscellaneous Products	12	32	8	0	4	56	2
Total	**710**	**892**	**10,216**	**7**	**7,839**	**19,664**	**655**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-September 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**(s)**	**2,047**	**0**	**0**	**36,510**	**38,558**	**141**
Natural Gas Liquids	**703**	**2,707**	**5,196**	**13**	**2,956**	**11,575**	**42**
Pentanes Plus	161	212	1,418	10	252	2,054	8
Liquefied Petroleum Gases	541	2,496	3,777	3	2,704	9,522	35
Ethane/Ethylene	54	0	(s)	1	11	66	(s)
Propane/Propylene	246	1,602	2,761	2	1,958	6,568	24
Normal Butane/Butylene	242	894	1,016	(s)	735	2,887	11
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**5,605**	**3,411**	**82,054**	**58**	**85,354**	**176,482**	**646**
Finished Motor Gasoline	294	114	8,755	5	2,538	11,705	43
Naphtha-Type Jet Fuel	3	4	388	6	(s)	401	1
Kerosene-Type Jet Fuel	3	37	3,207	0	1,957	5,204	19
Kerosene	33	18	89	(s)	5	145	1
Distillate Fuel Oil	563	80	14,289	4	9,800	24,735	91
Residual Fuel Oil	874	45	11,184	(s)	41,947	54,051	198
Naphtha for Petrochemical Feedstock Use	195	19	923	0	73	1,210	4
Other Oils for Petrochemical Feedstock Use	2	315	3,060	0	2,248	5,624	21
Special Naphthas	1,128	142	1,329	5	504	3,107	11
Lubricants	1,248	280	2,301	33	942	4,803	18
Waxes	58	19	295	(s)	82	455	2
Petroleum Coke	1,015	1,425	36,105	(s)	25,045	63,591	233
Asphalt and Road Oil	55	775	30	3	162	1,025	4
Miscellaneous Products	135	139	99	1	51	426	2
Total	**6,308**	**8,166**	**87,250**	**71**	**124,820**	**226,615**	**830**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, September 1989
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	0
Australia	0	0	1	0	0	0	(s)	57	8
Bahama Islands	0	0	0	93	0	0	382	97	0
Belgium & Luxembourg	0	0	(s)	(s)	0	0	0	0	0
Brazil	0	0	0	0	0	0	272	0	(s)
Canada	45	10	410	27	387	5	379	152	3
Chile	0	0	0	123	0	5	0	0	0
China, Taiwan	300	1	0	0	0	0	0	513	8
Colombia	0	0	1	0	0	0	0	0	(s)
Costa Rica	0	0	1	0	0	0	0	0	(s)
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	0	104	0
Ecuador	0	0	(s)	10	0	0	0	0	2
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0	1
Finland	0	0	0	0	0	0	0	0	0
France	0	0	1	0	0	0	(s)	0	(s)
French Pacific Islands	0	0	0	0	0	0	(s)	32	0
Germany, FR (W)	0	0	0	0	0	0	(s)	0	1
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	2	0	0	0	0	0	0
Guatemala	0	0	3	155	12	0	166	0	0
Honduras	0	0	0	0	0	0	(s)	0	(s)
Hong Kong	0	0	1	0	0	0	1	0	0
India	0	0	0	0	0	0	0	0	0
Indonesia	0	0	(s)	0	0	0	(s)	0	0
Israel	0	0	0	0	0	0	0	0	(s)
Italy	0	0	1	0	0	0	0	0	0
Jamaica	0	0	1	0	0	53	0	681	0
Japan	0	0	6	117	507	0	(s)	389	142
Korea, Republic of	0	0	0	0	0	(s)	0	0	51
Kuwait	0	0	0	0	0	0	0	0	0
Lebanon	0	0	0	0	0	0	0	0	(s)
Liberia	0	0	0	(s)	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	(s)
Mexico	0	16	427	148	0	(s)	20	1,223	1
Netherlands	0	0	6	1	0	0	1	0	33
Netherlands Antilles	0	0	0	0	0	0	0	173	0
New Zealand	0	0	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	27	0	0	0	200	0	0
Peru	0	0	0	9	110	0	33	0	0
Philippines	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	21	249	0	(s)	3	0	1
Saudi Arabia	0	0	(s)	0	0	0	2	0	0
Singapore	0	0	(s)	0	0	0	0	701	(s)
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	266	0	1
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0
Switzerland	0	0	3	0	0	0	0	0	0
Thailand	0	0	2	0	0	0	0	0	1
Trinidad and Tobago	0	0	0	0	0	0	199	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	(s)	0	0	0	0	0	0
United Kingdom	0	0	2	2	0	0	(s)	0	(s)
U.S.S.R.	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	496	0	(s)
Virgin Islands	616	0	0	0	0	0	(s)	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	0	1	1	3	(s)	3	(s)	(s)
Total	**961**	**27**	**918**	**935**	**1,019**	**64**	**2,425**	**4,122**	**255**

See footnotes at end of table.

able 37. Exports of Crude Oil and Petroleum Products by Destination, September 1989 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	1	(s)	0	0	(s)	1	(s)
Australia	0	(s)	8	(s)	489	(s)	(s)	565	19
Bahama Islands	0	0	2	0	0	(s)	0	575	19
Belgium & Luxembourg	0	(s)	24	(s)	511	(s)	(s)	537	18
Brazil	0	0	2	(s)	40	0	0	314	10
Canada	34	249	92	5	335	45	37	2,214	74
Chile	0	(s)	4	(s)	1	0	(s)	134	4
China, Taiwan	0	(s)	19	(s)	(s)	0	3	845	28
Colombia	0	0	2	(s)	1	0	(s)	4	(s)
Costa Rica	0	1	7	0	0	0	1	10	(s)
Denmark	0	0	(s)	(s)	0	(s)	(s)	(s)	(s)
Dominican Republic	0	0	3	(s)	0	(s)	(s)	107	4
Ecuador	0	(s)	(s)	(s)	0	(s)	(s)	13	(s)
Egypt	0	0	(s)	0	0	0	0	(s)	(s)
El Salvador	0	(s)	1	(s)	0	0	(s)	2	(s)
Finland	0	0	(s)	(s)	0	0	(s)	1	(s)
France	101	0	1	8	273	1	(s)	386	13
French Pacific Islands	0	0	1	0	0	0	0	33	1
Germany, FR (W)	0	1	6	13	104	3	(s)	127	4
Ghana	0	0	0	(s)	45	0	0	45	1
Greece	0	0	1	0	77	0	0	80	3
Guatemala	0	4	9	0	0	0	(s)	349	12
Honduras	0	(s)	3	(s)	0	(s)	(s)	4	(s)
Hong Kong	0	(s)	(s)	(s)	0	(s)	(s)	2	(s)
India	0	0	50	0	0	1	(s)	51	2
Indonesia	0	0	2	(s)	104	0	(s)	107	4
Israel	0	(s)	(s)	(s)	242	0	(s)	243	8
Italy	187	0	1	1	691	0	0	880	29
Jamaica	0	(s)	8	(s)	25	0	(s)	768	26
Japan	137	1	32	5	1,094	2	1	2,434	81
Korea, Republic of	88	0	10	1	243	(s)	1	394	13
Kuwait	0	0	1	0	0	0	(s)	1	(s)
Lebanon	0	0	2	(s)	0	0	0	2	(s)
Liberia	0	0	1	0	0	0	0	1	(s)
Malaysia	0	0	1	(s)	0	0	(s)	1	(s)
Mexico	0	1	77	13	44	5	1	1,977	66
Netherlands	0	256	6	1	816	1	5	1,124	37
Netherlands Antilles	0	0	1	0	0	0	(s)	175	6
New Zealand	0	0	6	(s)	0	0	0	6	(s)
Nigeria	0	0	(s)	(s)	0	0	0	(s)	(s)
Norway	0	0	1	0	27	0	(s)	28	1
Panama	0	0	6	0	0	0	(s)	233	8
Peru	0	0	(s)	(s)	(s)	0	0	153	5
Philippines	0	0	26	(s)	0	0	(s)	26	1
Puerto Rico	0	(s)	16	2	0	(s)	1	295	10
Saudi Arabia	0	0	9	0	3	0	(s)	14	(s)
Singapore	0	(s)	6	(s)	(s)	1	1	709	24
South Africa	0	0	5	(s)	0	(s)	(s)	6	(s)
Spain	64	0	5	2	384	0	(s)	721	24
Suriname	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	0	2	(s)	0	0	(s)	2	(s)
Switzerland	0	0	(s)	0	137	0	0	140	5
Thailand	96	(s)	2	(s)	0	0	1	102	3
Trinidad and Tobago	0	0	1	(s)	0	1	(s)	200	7
Turkey	0	0	1	0	55	0	0	56	2
United Arab Emirates	0	0	6	0	83	0	(s)	89	3
United Kingdom	0	(s)	1	1	905	1	(s)	913	30
U.S.S.R.	0	1	28	0	0	0	0	29	1
Uruguay	0	0	2	0	0	0	(s)	2	(s)
Venezuela	0	0	2	(s)	82	(s)	0	581	19
Virgin Islands	0	0	0	0	0	0	0	616	21
Yugoslavia	0	0	(s)	(s)	58	0	0	58	2
Other	0	1	11	(s)	156	(s)	(s)	176	6
Total	707	518	516	55	7,026	62	56	19,664	655

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-September 1989
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	1	0	0	0	(s)	364	2
Australia	0	337	4	537	0	0	1,254	971	57
Bahama Islands	0	0	31	687	220	0	2,103	2,787	(s)
Bahrain	0	1	0	0	0	0	1	0	(s)
Belgium & Luxembourg	0	35	102	2	0	0	8	0	10
Brazil	0	0	1	1	0	0	492	0	15
Cameroon	0	0	0	0	0	0	0	0	0
Canada	2,103	259	2,735	1,345	907	41	3,710	3,787	30
Chile	0	3	2	123	0	5	658	330	4
China, Taiwan	900	43	9	(s)	0	1	2,073	11,850	40
Colombia	0	(s)	4	689	0	0	11	0	1
Costa Rica	0	(s)	1	114	0	0	307	0	5
Denmark	0	0	1	0	0	0	0	0	(s)
Dominican Republic	0	0	79	88	39	0	201	336	4
Ecuador	0	0	696	30	0	0	0	0	6
Egypt	0	14	1	0	0	0	7	0	(s)
El Salvador	0	0	17	61	15	0	147	1	1
Finland	0	3	0	0	0	(s)	(s)	0	0
France	0	0	3	0	0	0	4	0	8
French Pacific Islands	0	0	0	0	0	0	90	870	0
Germany, FR (W)	0	1	115	1	0	0	673	0	18
Ghana	0	0	0	0	0	0	0	1	0
Greece	0	0	9	0	0	0	1	0	(s)
Guatemala	0	0	244	1,224	83	27	1,099	84	4
Honduras	0	0	(s)	0	0	0	9	0	9
Hong Kong	0	2	1	0	0	0	1	0	1
India	0	0	(s)	0	0	0	1	0	111
Indonesia	0	(s)	(s)	0	0	0	(s)	0	(s)
Israel	0	0	17	0	678	0	(s)	231	(s)
Italy	0	0	184	0	0	1	(s)	312	(s)
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	2	76	125	0	54	534	3,635	(s)
Japan	0	19	57	1,193	3,408	(s)	3,648	6,385	339
Korea, Republic of	0	3	104	2	0	(s)	255	706	130
Kuwait	0	0	0	0	0	0	(s)	0	(s)
Lebanon	0	1	(s)	0	0	0	0	0	(s)
Liberia	0	0	(s)	(s)	0	0	(s)	0	0
Malaysia	0	0	0	0	0	0	10	0	2
Malta	0	(s)	0	0	0	0	0	0	0
Mexico	0	1,207	4,636	3,660	(s)	10	661	14,371	43
Netherlands	0	0	14	31	0	0	3	213	133
Netherlands Antilles	0	0	0	45	0	0	410	1,245	1
New Zealand	0	10	(s)	19	0	0	(s)	0	3
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	95	241	45	0	1,429	780	6
Peru	0	0	1	19	200	0	1,059	0	1
Philippines	0	0	3	0	0	0	(s)	0	1
Puerto Rico	3,125	87	109	1,312	1	2	704	9	117
Saudi Arabia	0	6	4	0	0	(s)	28	0	1
Singapore	0	(s)	(s)	(s)	0	(s)	321	4,192	13
South Africa	0	0	1	0	0	(s)	0	0	(s)
Spain	0	(s)	(s)	0	0	0	595	110	12
Suriname	0	0	65	0	0	0	0	0	0
Sweden	0	(s)	0	0	0	0	(s)	0	(s)
Switzerland	0	(s)	4	0	0	1	0	0	0
Thailand	0	(s)	2	0	0	0	1	0	13
Trinidad and Tobago	0	0	2	(s)	0	0	248	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	3	(s)	0	0	0	(s)	0	22
United Kingdom	0	3	48	23	3	0	3	338	(s)
U.S.S.R.	0	0	0	0	0	0	0	0	11
Uruguay	0	0	(s)	0	0	0	377	0	0
Venezuela	0	0	5	22	0	0	903	0	13
Virgin Islands	32,430	0	0	16	0	(s)	70	0	(s)
Yugoslavia	0	0	0	0	0	0	0	0	17
Other	0	11	36	93	6	2	626	142	4
Total	**38,558**	**2,054**	**9,522**	**11,705**	**5,606**	**145**	**24,735**	**54,051**	**1,210**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-September 1989 (Continued)

(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	(s)	14	1	(s)	(s)	(s)	382	1
Australia	50	3	52	5	2,861	2	2	6,134	22
Bahama Islands	0	0	32	(s)	0	10	(s)	5,871	22
Bahrain	0	(s)	1	0	220	0	(s)	223	1
Belgium & Luxembourg	0	190	140	2	6,137	4	1	6,630	24
Brazil	0	(s)	86	(s)	546	(s)	1	1,143	4
Cameroon	0	0	(s)	0	113	0	0	113	(s)
Canada	315	539	849	42	3,477	826	216	21,181	78
Chile	0	3	148	2	6	(s)	2	1,286	5
China, Taiwan	0	3	275	10	84	1	22	15,309	56
Colombia	0	(s)	60	1	4	1	2	773	3
Costa Rica	0	10	76	1	0	0	4	518	2
Denmark	0	2	1	(s)	509	1	(s)	515	2
Dominican Republic	0	3	42	1	1	(s)	1	794	3
Ecuador	0	1	9	2	0	1	(s)	744	3
Egypt	0	(s)	20	0	0	(s)	(s)	42	(s)
El Salvador	0	1	15	(s)	(s)	0	1	260	1
Finland	0	(s)	11	(s)	303	0	(s)	318	1
France	905	241	16	77	1,669	11	1	2,935	11
French Pacific Islands	0	0	5	0	0	0	(s)	964	4
Germany, FR (W)	0	6	46	23	573	33	5	1,495	5
Ghana	0	0	2	(s)	277	(s)	0	279	1
Greece	0	1	46	(s)	826	0	(s)	883	3
Guatemala	0	17	111	1	1	(s)	1	2,895	11
Honduras	0	5	39	2	0	(s)	1	65	(s)
Hong Kong	0	(s)	11	3	(s)	(s)	1	20	(s)
India	93	1	181	2	(s)	6	3	398	1
Indonesia	0	(s)	16	(s)	209	(s)	(s)	226	1
Israel	0	9	23	(s)	440	0	2	1,400	5
Italy	952	(s)	9	6	8,709	3	2	10,178	37
Ivory Coast	0	0	14	0	0	(s)	(s)	14	(s)
Jamaica	0	2	45	(s)	25	(s)	2	4,501	16
Japan	1,012	432	357	42	14,649	12	17	31,573	116
Korea, Republic of	902	1	129	11	855	1	6	3,105	11
Kuwait	0	(s)	7	(s)	0	0	(s)	8	(s)
Lebanon	0	0	6	(s)	30	0	(s)	38	(s)
Liberia	0	0	3	(s)	0	0	(s)	4	(s)
Malaysia	82	2	8	4	18	0	1	126	(s)
Malta	0	0	0	0	0	0	0	(s)	(s)
Mexico	(s)	28	748	141	579	35	21	26,141	96
Netherlands	364	1,127	69	10	7,166	5	31	9,168	34
Netherlands Antilles	0	0	10	0	0	0	1	1,711	6
New Zealand	0	(s)	19	3	392	(s)	(s)	447	2
Nigeria	0	0	9	(s)	0	0	7	16	(s)
Norway	0	0	6	(s)	783	(s)	(s)	790	3
Panama	0	5	131	(s)	0	1	1	2,734	10
Peru	0	1	61	(s)	(s)	(s)	1	1,344	5
Philippines	122	(s)	54	1	(s)	0	1	183	1
Puerto Rico	0	211	177	14	10	(s)	9	5,887	22
Saudi Arabia	0	13	63	(s)	7	0	2	124	(s)
Singapore	54	2	43	1	28	6	5	4,666	17
South Africa	0	(s)	8	(s)	307	1	(s)	318	1
Spain	319	224	39	20	6,662	2	1	7,984	29
Suriname	0	(s)	3	0	0	0	(s)	68	(s)
Sweden	0	0	11	1	225	(s)	1	239	1
Switzerland	0	5	4	(s)	137	(s)	1	153	1
Thailand	333	(s)	19	1	0	(s)	4	374	1
Trinidad and Tobago	0	0	1	(s)	0	1	1	253	1
Turkey	0	(s)	13	(s)	454	0	(s)	468	2
United Arab Emirates	0	1	12	0	350	(s)	(s)	388	1
United Kingdom	90	5	16	7	2,027	10	35	2,608	10
U.S.S.R.	0	1	229	0	295	3	4	543	2
Uruguay	0	0	9	(s)	0	0	(s)	387	1
Venezuela	0	3	28	5	525	1	1	1,505	6
Virgin Islands	0	(s)	1	0	0	0	0	32,518	119
Yugoslavia	0	(s)	(s)	(s)	285	3	0	305	1
Other	30	10	119	11	815	39	6	1,951	7
Total	**5,624**	**3,107**	**4,803**	**455**	**63,591**	**1,025**	**426**	**226,615**	**830**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, September 1989
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,874**	**30**	**11**	**4**	**15**	**42**	**-3**	**-1**	**219**	**317**	**2,191**
Algeria	58	30	0	0	8	33	0	0	127	197	256
Iraq	498	0	0	0	0	0	0	(s)	15	15	513
Kuwait	271	0	0	0	0	0	0	(s)	(s)	(s)	271
Qatar	26	0	0	0	0	0	0	0	0	0	26
Saudi Arabia	1,021	(s)	11	4	7	9	(s)	(s)	57	88	1,109
United Arab Emirates	0	(s)	0	0	0	0	-3	(s)	20	17	17
Other OPEC	**1,666**	**(s)**	**77**	**26**	**85**	**94**	**-6**	**(s)**	**94**	**369**	**2,035**
Ecuador	109	(s)	(s)	0	0	6	0	(s)	(s)	6	115
Gabon	32	0	0	0	0	0	0	0	0	0	32
Indonesia	91	(s)	0	0	(s)	0	-3	(s)	22	18	109
Nigeria	866	0	0	0	8	23	0	(s)	(s)	31	897
Venezuela	568	0	77	26	77	65	-3	(s)	72	314	882
Non OPEC	**2,459**	**108**	**193**	**31**	**63**	**148**	**-224**	**-10**	**297**	**606**	**3,065**
Angola	321	0	0	0	0	0	0	0	0	0	321
Argentina	14	0	0	0	0	0	0	(s)	6	6	20
Australia	45	(s)	0	0	(s)	(s)	-16	(s)	(s)	-17	29
Bahama Islands	0	0	-3	0	-5	-3	0	(s)	(s)	-11	-11
Belgium & Luxembourg	0	(s)	(s)	0	0	5	-17	-1	10	-2	-2
Brazil	0	0	48	0	-9	18	-1	(s)	8	63	63
Cameroon	55	0	0	0	0	0	0	0	0	0	55
Canada	656	88	49	4	50	8	-10	-1	21	209	865
China, People's Republic of	87	0	0	0	0	0	0	(s)	(s)	(s)	87
China, Taiwan	-10	0	0	0	0	-17	(s)	-1	(s)	-18	-28
Colombia	130	(s)	0	0	0	17	(s)	(s)	(s)	17	147
Egypt	23	0	0	0	0	0	0	(s)	7	7	30
Finland	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
France	0	1	0	0	(s)	0	-9	(s)	-1	-10	-10
Greece	0	(s)	0	0	0	11	-3	(s)	0	8	8
Guatemala	0	(s)	-5	(s)	-6	0	0	(s)	(s)	-12	-12
India	0	0	0	0	0	0	0	-2	18	17	17
Italy	0	(s)	0	0	0	7	-23	(s)	2	-14	-14
Jamaica	0	(s)	0	0	0	-23	-1	(s)	-2	-26	-26
Japan	0	1	-4	-17	(s)	-13	-36	-1	-9	-79	-79
Korea, Republic of	0	0	0	0	0	0	-8	(s)	-4	-12	-12
Malaysia	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	659	20	-5	6	13	-41	-1	-3	(s)	-10	649
Netherlands	0	(s)	26	0	(s)	11	-27	(s)	7	17	17
Netherlands Antilles	0	0	8	0	0	13	0	(s)	8	29	29
Norway	119	0	0	0	0	18	-1	(s)	9	26	145
Oman	70	0	0	0	0	0	0	(s)	0	(s)	70
Panama	0	-1	0	0	-7	0	0	(s)	(s)	-8	-8
Peru	0	0	(s)	-4	-1	18	(s)	(s)	(s)	13	13
Puerto Rico	0	-1	-8	0	(s)	0	0	4	28	23	23
Romania	0	0	16	0	0	0	0	(s)	36	52	52
Singapore	0	(s)	0	0	0	-23	(s)	(s)	(s)	-24	-24
Spain	0	0	17	14	-9	12	-13	(s)	24	46	46
Syria	20	0	0	0	0	8	0	0	0	8	27
Thailand	22	(s)	0	0	0	0	0	(s)	-3	-3	18
Trinidad and Tobago	69	0	0	0	(s)	19	0	(s)	1	19	88
United Kingdom	149	(s)	8	0	(s)	34	-30	(s)	(s)	11	161
U.S.S.R.	0	0	0	0	0	10	0	-1	58	67	67
Virgin Islands	-21	0	51	28	30	32	0	0	49	190	169
Zaire	35	0	0	0	0	0	0	(s)	0	(s)	35
Other	16	(s)	-4	(s)	6	28	-27	-3	23	23	39
Total	**5,999**	**138**	**281**	**61**	**162**	**284**	**-233**	**-10**	**610**	**1,292**	**7,292**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-September 1989

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,802**	**30**	**35**	**9**	**16**	**46**	**-1**	**(s)**	**195**	**330**	**2,132**
Algeria	57	23	1	0	12	43	0	(s)	123	203	260
Iraq	440	0	0	0	0	0	0	(s)	9	9	449
Kuwait	156	2	0	1	(s)	0	0	(s)	(s)	3	159
Qatar	3	0	0	0	0	0	0	(s)	(s)	(s)	3
Saudi Arabia	1,120	1	34	8	4	3	(s)	(s)	60	110	1,230
United Arab Emirates	26	3	0	0	(s)	0	-1	(s)	4	6	32
Other OPEC	**1,540**	**6**	**72**	**29**	**97**	**120**	**-3**	**(s)**	**85**	**406**	**1,946**
Ecuador	86	-3	(s)	0	0	8	0	(s)	(s)	5	90
Gabon	39	0	0	0	0	1	0	(s)	0	1	40
Indonesia	148	(s)	0	0	(s)	14	-1	(s)	7	20	168
Nigeria	797	0	0	0	1	10	0	(s)	2	13	810
Venezuela	471	8	72	29	96	87	-2	(s)	76	367	838
Non OPEC	**2,283**	**105**	**218**	**47**	**102**	**258**	**-228**	**-6**	**280**	**776**	**3,059**
Angola	259	0	0	0	0	5	0	(s)	0	5	264
Argentina	11	(s)	3	0	1	6	(s)	(s)	3	13	23
Australia	25	(s)	-1	0	-4	-2	-10	(s)	-2	-19	6
Bahama Islands	0	(s)	-3	-1	-7	21	0	(s)	(s)	10	10
Belgium & Luxembourg	0	(s)	2	0	3	2	-22	-1	7	-9	-9
Brazil	0	1	52	0	5	26	-2	(s)	2	84	84
Cameroon	33	0	0	0	0	7	(s)	(s)	0	7	39
Canada	614	99	43	7	48	15	-12	-1	24	223	838
China, People's Republic of	71	0	5	0	-1	0	-2	(s)	(s)	3	74
China, Taiwan	-3	(s)	(s)	0	-8	-43	(s)	-1	(s)	-53	-56
Colombia	126	(s)	-3	0	1	35	(s)	(s)	1	34	161
Congo	7	0	0	0	0	4	0	(s)	0	4	11
Egypt	10	(s)	0	0	(s)	0	0	(s)	4	4	14
Finland	0	0	0	0	(s)	0	-1	(s)	(s)	-1	-1
France	0	1	8	0	(s)	3	-6	(s)	-2	4	4
Greece	0	(s)	3	3	(s)	8	-3	(s)	1	12	12
Guatemala	2	-1	-4	(s)	-4	(s)	(s)	(s)	(s)	-11	-9
India	1	(s)	0	0	(s)	0	(s)	-1	35	35	35
Italy	4	-1	12	0	(s)	1	-32	(s)	6	-14	-10
Jamaica	0	(s)	(s)	0	-2	-13	(s)	(s)	(s)	-16	-16
Japan	0	1	-4	-11	-13	-23	-53	-1	-6	-112	-112
Korea, Republic of	0	(s)	(s)	1	(s)	-3	-3	(s)	-2	-8	-8
Malaysia	34	0	0	0	(s)	0	(s)	(s)	(s)	(s)	33
Mexico	726	4	-13	11	(s)	-43	-2	-3	-1	-46	680
Netherlands	0	(s)	28	0	2	5	-26	(s)	7	16	16
Netherlands Antilles	0	0	5	0	2	19	0	(s)	6	32	32
Norway	130	0	0	0	0	7	-3	(s)	1	5	135
Oman	21	0	0	0	(s)	0	0	(s)	1	1	22
Panama	0	(s)	-1	(s)	-5	-1	0	(s)	(s)	-8	-8
Peru	1	(s)	(s)	-1	-4	30	(s)	(s)	2	28	29
Puerto Rico	-11	(s)	-5	(s)	-3	(s)	(s)	8	22	22	10
Romania	0	0	6	0	1	3	0	(s)	14	23	23
Singapore	0	(s)	(s)	3	-1	-4	(s)	(s)	3	(s)	(s)
Spain	0	(s)	30	9	(s)	5	-24	(s)	19	38	38
Syria	9	0	0	0	0	4	0	0	3	6	15
Thailand	18	(s)	0	0	(s)	0	0	(s)	-1	-1	17
Trinidad and Tobago	74	(s)	(s)	2	3	16	0	(s)	1	21	96
United Kingdom	168	2	15	(s)	11	28	-7	(s)	1	50	218
U.S.S.R.	0	0	0	0	12	5	-1	-1	34	49	49
Virgin Islands	-119	0	38	27	63	121	0	(s)	85	334	215
Zaire	27	0	0	0	0	(s)	0	(s)	(s)	(s)	27
Other	46	(s)	2	-3	2	13	-15	-2	14	12	58
Total	**5,624**	**141**	**324**	**85**	**215**	**424**	**-232**	**-6**	**561**	**1,512**	**7,137**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	**14,661**	**69,214**	**737,082**	**11,603**	**79,607**	**912,167**
Refinery	13,258	12,745	45,946	1,871	23,842	97,662
Tank Farms and Pipelines	1,359	55,011	96,451	8,693	32,167	193,681
Leases	44	1,458	17,554	1,039	1,439	21,534
Strategic Petroleum Reserve[a]	0	0	577,131	0	0	577,131
Alaskan In Transit	0	0	0	0	22,159	22,159
Total Stocks, All Oils (excluding Crude Oil)	**182,417**	**181,959**	**286,218**	**16,528**	**90,309**	**757,431**
Refinery	45,035	65,116	150,183	11,159	60,705	332,198
Bulk Terminal	109,060	77,024	86,043	2,912	24,390	299,429
Pipeline	27,994	37,651	43,068	2,282	5,164	116,159
Natural Gas Processing Plant	328	2,168	6,924	175	50	9,645
Pentanes Plus	**135**	**3,239**	**6,297**	**148**	**64**	**9,883**
Refinery	14	246	472	4	23	759
Bulk Terminal	59	2,268	3,387	0	26	5,740
Pipeline	0	539	1,074	85	0	1,698
Natural Gas Processing Plant	62	186	1,364	59	15	1,686
Liquefied Petroleum Gases	**6,019**	**36,557**	**77,943**	**1,118**	**4,772**	**126,409**
Refinery	1,588	3,782	11,922	464	1,364	19,120
Bulk Terminal	2,253	23,888	54,117	114	3,373	83,745
Pipeline	1,912	6,905	6,344	424	0	15,585
Natural Gas Processing Plant	266	1,982	5,560	116	35	7,959
Ethane/Ethylene	**23**	**4,942**	**19,436**	**131**	**0**	**24,532**
Refinery	21	1	1,045	1	0	1,068
Bulk Terminal	2	3,476	14,621	0	0	18,099
Pipeline	0	1,031	2,425	128	0	3,584
Natural Gas Processing Plant	0	434	1,345	2	0	1,781
Propane/Propylene	**4,876**	**19,737**	**34,445**	**513**	**965**	**60,536**
Refinery	1,248	2,134	4,550	168	94	8,194
Bulk Terminal	1,681	13,356	25,554	114	851	41,556
Pipeline	1,755	3,379	2,525	160	0	7,819
Natural Gas Processing Plant	192	868	1,816	71	20	2,967
Normal Butane/Butylene	**1,072**	**9,184**	**18,275**	**359**	**3,220**	**32,110**
Refinery	280	1,245	4,886	231	1,011	7,653
Bulk Terminal	564	5,609	10,732	0	2,198	19,103
Pipeline	157	1,812	905	90	0	2,964
Natural Gas Processing Plant	71	518	1,752	38	11	2,390
Isobutane	**48**	**2,694**	**5,787**	**115**	**587**	**9,231**
Refinery	39	402	1,441	64	259	2,205
Bulk Terminal	6	1,447	3,210	0	324	4,987
Pipeline	0	683	489	46	0	1,218
Natural Gas Processing Plant	3	162	647	5	4	821
Other Hydrocarbons/Alcohol	**250**	**130**	**300**	**118**	**11**	**809**
Refinery	250	130	300	118	11	809
Unfinished Oils	**12,829**	**17,393**	**50,688**	**2,518**	**23,696**	**107,124**
Refinery						
Naphthas and Lighter	3,818	4,810	13,852	601	4,428	27,509
Kerosene and Light Gas Oils	2,721	1,956	9,374	396	3,250	17,697
Heavy Gas Oils	5,234	6,194	18,995	1,215	11,741	43,379
Residuum	1,056	4,433	8,467	306	4,277	18,539
Motor Gasoline Blending Components	**5,491**	**9,630**	**16,212**	**2,055**	**7,453**	**40,841**
Refinery	5,367	8,877	15,282	1,955	7,331	38,812
Bulk Terminal	124	625	917	96	13	1,775
Pipeline	0	128	13	4	109	254

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	0	81	38	0	6	125
Refinery	0	81	38	0	6	125
Finished Motor Gasoline	56,173	53,226	50,189	4,578	21,873	186,039
Refinery	8,135	9,461	20,429	1,934	8,477	48,436
Bulk Terminal	34,503	25,433	10,503	1,766	11,271	83,476
Pipeline	13,535	18,332	19,257	878	2,125	54,127
Finished Leaded Motor Gasoline	2,389	7,524	4,150	1,674	5,391	21,128
Refinery	145	1,399	1,827	745	1,986	6,102
Bulk Terminal	1,780	3,248	1,330	651	3,117	10,126
Pipeline	464	2,877	993	278	288	4,900
Finished Unleaded Motor Gasoline	53,784	45,702	46,039	2,904	16,482	164,911
Refinery	7,990	8,062	18,602	1,189	6,491	42,334
Bulk Terminal	32,723	22,185	9,173	1,115	8,154	73,350
Pipeline	13,071	15,455	18,264	600	1,837	49,227
Finished Aviation Gasoline	271	516	641	53	466	1,947
Refinery	22	106	594	44	211	977
Bulk Terminal	249	335	46	9	255	894
Pipeline	0	75	1	0	0	76
Naphtha-Type Jet Fuel	1,076	943	2,573	432	1,795	6,819
Refinery	263	518	1,800	261	825	3,667
Bulk Terminal	479	227	127	0	504	1,337
Pipeline	334	198	646	171	466	1,815
Kerosene-Type Jet Fuel	11,467	8,840	15,454	768	5,262	41,791
Refinery	1,773	2,046	6,679	403	2,603	13,504
Bulk Terminal	4,671	4,085	1,727	178	1,847	12,508
Pipeline	5,023	2,709	7,048	187	812	15,779
Kerosene	3,385	1,930	2,017	96	137	7,565
Refinery	338	772	1,082	71	76	2,339
Bulk Terminal	2,836	948	484	25	55	4,348
Pipeline	211	210	451	0	6	878
Distillate Fuel Oil	50,163	30,907	27,808	2,743	10,618	122,239
Refinery	6,709	9,278	14,791	1,519	5,016	37,313
Bulk Terminal	36,475	13,087	5,055	691	4,242	59,550
Pipeline	6,979	8,542	7,962	533	1,360	25,376
Residual Fuel Oil[b]	22,272	3,482	15,241	560	7,967	49,522
Refinery	2,516	2,241	7,764	560	5,938	19,019
Bulk Terminal	19,756	1,241	7,477	0	1,906	30,380
Pipeline	0	0	0	0	123	123
Less than 0.31% Sulfur	5,718	256	1,318	38	708	8,038
Refinery	351	48	1,318	38	591	2,346
Bulk Terminal	5,367	208	0	0	117	5,692
0.31 to 1.00% Sulfur	8,621	806	4,635	189	1,171	15,422
Refinery	1,445	376	1,010	189	913	3,933
Bulk Terminal	7,176	430	3,625	0	258	11,489
Greater than 1.00% Sulfur	7,933	2,420	9,288	333	5,965	25,939
Refinery	720	1,817	5,436	333	4,434	12,740
Bulk Terminal	7,213	603	3,852	0	1,531	13,199
Naphtha for Petrochemical Feedstock Use	327	389	1,129	48	186	2,079
Refinery	327	389	1,129	48	186	2,079

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	**8**	**19**	**1,718**	**2**	**166**	**1,913**
Refinery	8	19	1,718	2	166	1,913
Special Naphthas	**1,118**	**710**	**1,707**	**3**	**145**	**3,683**
Refinery	552	273	1,657	3	132	2,617
Bulk Terminal	566	437	50	0	13	1,066
Lubricants	**2,976**	**2,295**	**7,223**	**184**	**1,560**	**14,238**
Refinery	894	1,310	6,455	184	853	9,696
Bulk Terminal	2,082	985	768	0	707	4,542
Waxes	**50**	**86**	**511**	**80**	**202**	**929**
Refinery	50	86	511	80	202	929
Petroleum Coke	**762**	**2,994**	**2,973**	**8**	**1,885**	**8,622**
Refinery	762	2,994	2,973	8	1,885	8,622
Asphalt and Road Oil	**6,744**	**8,293**	**4,184**	**1,003**	**1,698**	**21,922**
Refinery	2,374	4,971	3,383	970	1,552	13,250
Bulk Terminal	4,370	3,322	801	33	146	8,672
Miscellaneous Products	**901**	**299**	**1,372**	**13**	**347**	**2,932**
Refinery	264	143	516	13	152	1,088
Bulk Terminal	637	143	584	0	32	1,396
Pipeline	0	13	272	0	163	448
Total Stocks, All Oils	**197,078**	**251,173**	**1,023,300**	**28,131**	**169,916**	**1,669,598**

[a] Includes 38,395 thousand barrels of domestic crude oil.
[b] Sulfur content not available for stocks held by pipelines.
Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 42. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, September 1989
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I	**1,925**	**40,713**	**3,174**	**43,184**	**22,272**
Connecticut	0	1,514	405	3,262	285
Delaware, D.C., Maryland	158	1,936	150	2,967	2,218
Florida	462	5,865	270	2,071	665
Georgia	289	2,522	80	1,224	285
Maine, New Hampshire, Vermont	0	978	401	2,106	537
Massachusetts	18	1,598	102	2,496	1,827
New Jersey	118	9,113	89	11,558	9,955
New York	44	3,634	335	6,959	3,457
North Carolina	382	2,701	184	1,533	495
Pennsylvania	71	5,367	708	4,577	1,330
Rhode Island	2	601	W	1,288	W
South Carolina	99	1,406	124	839	W
Virginia	256	3,279	145	2,222	571
West Virginia	26	199	W	82	W
PAD District II	**4,647**	**30,247**	**1,720**	**22,365**	**3,482**
Illinois	711	5,971	273	4,873	1,210
Indiana	396	3,696	176	2,540	611
Iowa	281	941	W	1,026	W
Kansas, Nebraska	925	2,304	18	2,185	62
Kentucky	38	1,677	47	572	W
Michigan	224	3,234	153	1,914	195
Minnesota	395	1,278	W	1,412	190
Missouri	383	982	W	680	W
North Dakota, South Dakota	265	493	W	693	W
Ohio	76	4,476	587	2,158	328
Oklahoma	539	1,366	W	1,899	317
Tennessee	144	2,214	47	917	260
Wisconsin	270	1,615	W	1,496	39
PAD District III	**3,157**	**27,775**	**1,566**	**19,846**	**15,241**
Alabama	112	1,508	114	898	637
Arkansas	62	246	W	278	W
Louisiana	360	5,589	492	4,317	5,880
Mississippi	200	2,497	40	1,394	W
New Mexico	214	319	W	194	32
Texas	2,209	17,616	916	12,765	8,414
PAD District IV	**1,396**	**2,304**	**96**	**2,210**	**560**
Colorado	366	700	W	324	W
Idaho	128	279	W	170	W
Montana	500	478	W	605	58
Utah	184	350	W	415	99
Wyoming	218	497	W	696	W
PAD District V	**5,103**	**14,645**	**131**	**9,258**	**7,844**
Alaska	231	636	W	865	W
Arizona	272	560	W	222	W
California	2,756	9,857	77	5,132	5,031
Hawaii	86	557	W	554	W
Nevada	125	260	W	123	W
Oregon	512	685	W	808	227
Washington	1,121	2,090	W	1,554	1,087
U.S. Total	**16,228**	**115,684**	**6,687**	**96,863**	**49,399**

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, September 1989
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	**0**	**0**	**0**	**165**	**2,751**	**521**	**0**	**242**	**53,797**
Petroleum Products	**7,643**	**85**	**0**	**3,346**	**6,223**	**2,023**	**0**	**74,460**	**27,588**
Pentanes Plus	0	0	0	0	226	0	0	0	689
Liquefied Petroleum Gases	0	0	0	646	3,449	116	0	2,079	2,510
Unfinished Oils	10	0	0	0	0	0	0	66	456
Motor Gasoline Blending Components	39	0	0	66	0	0	0	243	29
Finished Motor Gasoline	5,107	0	0	1,578	1,664	1,203	0	45,383	14,687
Leaded	194	0	0	0	184	260	0	1,575	1,007
Unleaded	4,913	0	0	1,578	1,480	943	0	43,808	13,680
Finished Aviation Gasoline	10	0	0	0	0	14	0	129	147
Jet Fuel	275	0	0	104	278	504	0	9,906	2,749
Naphtha-Type	0	0	0	0	115	0	0	431	54
Kerosene-Type	275	0	0	104	163	504	0	9,475	2,695
Kerosene	75	0	0	60	0	0	0	276	24
Distillate Fuel Oil	2,065	0	0	607	425	186	0	13,970	5,223
Residual Fuel Oil	0	0	0	16	118	0	0	556	1
Petrochemical Feedstocks[a]	62	0	0	57	9	0	0	21	202
Special Naphthas	0	4	0	0	0	0	0	219	71
Lubricants	0	67	0	28	44	0	0	1,127	399
Waxes	0	0	0	0	0	0	0	6	0
Asphalt and Road Oil	0	0	0	184	0	0	0	307	401
Miscellaneous Products	0	14	0	0	10	0	0	172	0
Total	**7,643**	**85**	**0**	**3,511**	**8,974**	**2,544**	**0**	**74,702**	**81,385**

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	**0**	**0**	**3,542**	**1,400**	**0**	**0**	**0**	**9,094**	**0**
Petroleum Products	**0**	**1,803**	**1,377**	**1,170**	**1,073**	**0**	**0**	**0**	**0**
Pentanes Plus	0	0	111	120	0	0	0	0	0
Liquefied Petroleum Gases	0	0	430	1,050	0	0	0	0	0
Unfinished Oils	0	114	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	910	525	0	693	0	0	0	0
Leaded	0	125	177	0	244	0	0	0	0
Unleaded	0	785	348	0	449	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	397	3	0	163	0	0	0	0
Naphtha-Type	0	256	0	0	103	0	0	0	0
Kerosene-Type	0	141	3	0	60	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	382	308	0	217	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	**0**	**1,803**	**4,919**	**2,570**	**1,073**	**0**	**0**	**9,094**	**0**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, September 1989

(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	33	2,751	521	0	53,797
Petroleum Products	7,465	0	1,816	6,052	2,023	59,086	22,728
Pentanes Plus	0	0	0	226	0	0	689
Liquefied Petroleum Gases	0	0	646	3,449	116	1,903	2,510
Motor Gasoline Blending Components	0	0	66	0	0	176	0
Finished Motor Gasoline	5,085	0	804	1,664	1,203	36,607	12,573
Leaded	194	0	0	184	260	1,296	872
Unleaded	4,891	0	804	1,480	943	35,311	11,701
Finished Aviation Gasoline	10	0	0	0	14	32	129
Jet Fuel	275	0	26	278	504	8,009	2,476
Naphtha-Type	0	0	0	115	0	381	54
Kerosene-Type	275	0	26	163	504	7,628	2,422
Kerosene	75	0	0	0	0	246	0
Distillate Fuel Oil	2,020	0	274	425	186	12,113	4,351
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	10	0	0	0
Total	7,465	0	1,849	8,803	2,544	59,086	76,525

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	3,542	1,400	0	3,138	0
Petroleum Products	0	1,654	1,377	1,170	1,073	0	0
Pentanes Plus	0	0	111	120	0	0	0
Liquefied Petroleum Gases	0	0	430	1,050	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	875	525	0	693	0	0
Leaded	0	125	177	0	244	0	0
Unleaded	0	750	348	0	449	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	397	3	0	163	0	0
Naphtha-Type	0	256	0	0	103	0	0
Kerosene-Type	0	141	3	0	60	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	382	308	0	217	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,654	4,919	2,570	1,073	3,138	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, September 1989
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	**0**	**0**	**0**	**132**	**0**	**0**	**242**	**0**
Petroleum Products	**178**	**85**	**0**	**1,530**	**171**	**0**	**15,374**	**0**
Liquefied Petroleum Gases	0	0	0	0	0	0	176	0
Unfinished Oils	10	0	0	0	0	0	66	0
Motor Gasoline Blending Components	39	0	0	0	0	0	67	0
Finished Motor Gasoline	22	0	0	774	0	0	8,776	0
Leaded	0	0	0	0	0	0	279	0
Unleaded	22	0	0	774	0	0	8,497	0
Finished Aviation Gasoline	0	0	0	0	0	0	97	0
Jet Fuel	0	0	0	78	0	0	1,897	0
Naphtha-Type	0	0	0	0	0	0	50	0
Kerosene-Type	0	0	0	78	0	0	1,847	0
Kerosene	0	0	0	60	0	0	30	0
Distillate Fuel Oil	45	0	0	333	0	0	1,857	0
Residual Fuel Oil	0	0	0	16	118	0	556	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	112	0
Greater than 1.00 percent sulfur	0	0	0	16	118	0	444	0
Petrochemical Feedstocks[a]	62	0	0	57	9	0	21	0
Special Naphthas	0	4	0	0	0	0	219	0
Lubricants	0	67	0	28	44	0	1,127	0
Waxes	0	0	0	0	0	0	6	0
Asphalt and Road Oil	0	0	0	184	0	0	307	0
Miscellaneous Products	0	14	0	0	0	0	172	0
Total	**178**	**85**	**0**	**1,662**	**171**	**0**	**15,616**	**0**

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	**242**	**0**	**0**	**0**	**0**	**0**	**5,956**
Petroleum Products	**1,128**	**14,246**	**4,860**	**149**	**0**	**0**	**0**
Liquefied Petroleum Gases	0	176	0	0	0	0	0
Unfinished Oils	20	46	456	114	0	0	0
Motor Gasoline Blending Components	67	0	29	0	0	0	0
Finished Motor Gasoline	94	8,682	2,114	35	0	0	0
Leaded	0	279	135	0	0	0	0
Unleaded	94	8,403	1,979	35	0	0	0
Finished Aviation Gasoline	46	51	18	0	0	0	0
Jet Fuel	68	1,829	273	0	0	0	0
Naphtha-Type	0	50	0	0	0	0	0
Kerosene-Type	68	1,779	273	0	0	0	0
Kerosene	30	0	24	0	0	0	0
Distillate Fuel Oil	94	1,763	872	0	0	0	0
Residual Fuel Oil	0	556	1	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	112	0	0	0	0	0
Greater than 1.00 percent sulfur	0	444	1	0	0	0	0
Petrochemical Feedstocks[a]	0	21	202	0	0	0	0
Special Naphthas	96	123	71	0	0	0	0
Lubricants	446	681	399	0	0	0	0
Waxes	6	0	0	0	0	0	0
Asphalt and Road Oil	7	300	401	0	0	0	0
Miscellaneous Products	154	18	0	0	0	0	0
Total	**1,370**	**14,246**	**4,860**	**149**	**0**	**0**	**5,956**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, September 1989

(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**407**	**0**	**407**	**57,339**	**3,437**	**53,902**
Petroleum Products	**77,806**	**7,728**	**70,078**	**36,608**	**11,592**	**25,016**
Pentanes Plus	0	0	0	800	226	574
Liquefied Petroleum Gases	2,725	0	2,725	2,940	4,211	-1,271
Ethane/Ethylene	0	0	0	334	1,305	-971
Propane/Propylene	2,699	0	2,699	1,753	2,406	-653
Normal Butane/Butylene	0	0	0	267	384	-117
Isobutane	26	0	26	586	116	470
Unfinished Oils	66	10	56	466	0	466
Motor Gasoline Blending Components	309	39	270	68	66	2
Finished Motor Gasoline	46,961	5,107	41,854	20,319	4,445	15,874
Leaded	1,575	194	1,381	1,378	444	934
Unleaded	45,386	4,913	40,473	18,941	4,001	14,940
Finished Aviation Gasoline	129	10	119	157	14	143
Jet Fuel	10,010	275	9,735	3,027	886	2,141
Naphtha-Type	431	0	431	54	115	-61
Kerosene-Type	9,579	275	9,304	2,973	771	2,202
Kerosene	336	75	261	99	60	39
Distillate Fuel Oil	14,577	2,065	12,512	7,596	1,218	6,378
Residual Fuel Oil	572	0	572	1	134	-133
Petrochemical Feedstocks[a]	78	62	16	264	66	198
Special Naphthas	219	4	215	71	0	71
Lubricants	1,155	67	1,088	399	72	327
Waxes	6	0	6	0	0	0
Asphalt and Road Oil	491	0	491	401	184	217
Miscellaneous Products	172	14	158	0	10	-10
Total	**78,213**	**7,728**	**70,485**	**93,947**	**15,029**	**78,918**

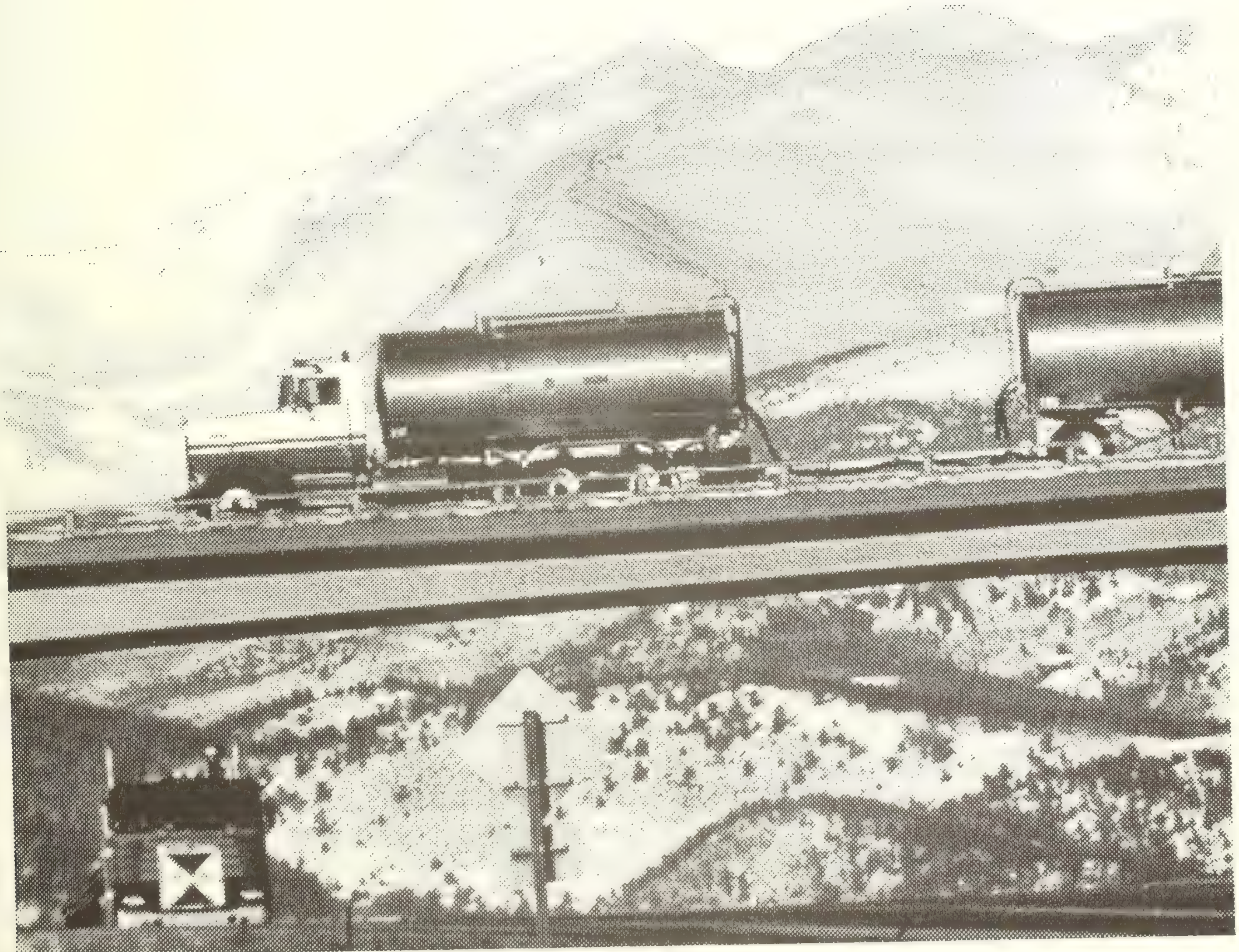
Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	**13,245**	**54,039**	**-40,794**	**521**	**4,942**	**-4,421**	**0**	**9,094**	**-9,094**
Petroleum Products	**7,478**	**103,851**	**-96,373**	**2,023**	**3,620**	**-1,597**	**2,876**	**0**	**2,876**
Pentanes Plus	346	689	-343	0	231	-231	0	0	0
Liquefied Petroleum Gases	4,499	4,589	-90	116	1,480	-1,364	0	0	0
Ethane/Ethylene	1,732	217	1,515	0	544	-544	0	0	0
Propane/Propylene	2,006	3,686	-1,680	114	480	-366	0	0	0
Normal Butane/Butylene	554	150	404	2	289	-287	0	0	0
Isobutane	207	536	-329	0	167	-167	0	0	0
Unfinished Oils	0	636	-636	0	0	0	114	0	114
Motor Gasoline Blending Components	0	272	-272	0	0	0	0	0	0
Finished Motor Gasoline	1,664	60,980	-59,316	1,203	1,218	-15	1,603	0	1,603
Leaded	184	2,707	-2,523	260	421	-161	369	0	369
Unleaded	1,480	58,273	-56,793	943	797	146	1,234	0	1,234
Finished Aviation Gasoline	0	276	-276	14	0	14	0	0	0
Jet Fuel	278	13,052	-12,774	504	166	338	560	0	560
Naphtha-Type	115	741	-626	0	103	-103	359	0	359
Kerosene-Type	163	12,311	-12,148	504	63	441	201	0	201
Kerosene	0	300	-300	0	0	0	0	0	0
Distillate Fuel Oil	425	19,575	-19,150	186	525	-339	599	0	599
Residual Fuel Oil	118	557	-439	0	0	0	0	0	0
Petrochemical Feedstocks[a]	9	223	-214	0	0	0	0	0	0
Special Naphthas	4	290	-286	0	0	0	0	0	0
Lubricants	111	1,526	-1,415	0	0	0	0	0	0
Waxes	0	6	-6	0	0	0	0	0	0
Asphalt and Road Oil	0	708	-708	0	0	0	0	0	0
Miscellaneous Products	24	172	-148	0	0	0	0	0	0
Total	**20,723**	**157,890**	**-137,167**	**2,544**	**8,562**	**-6,018**	**2,876**	**9,094**	**-6,218**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

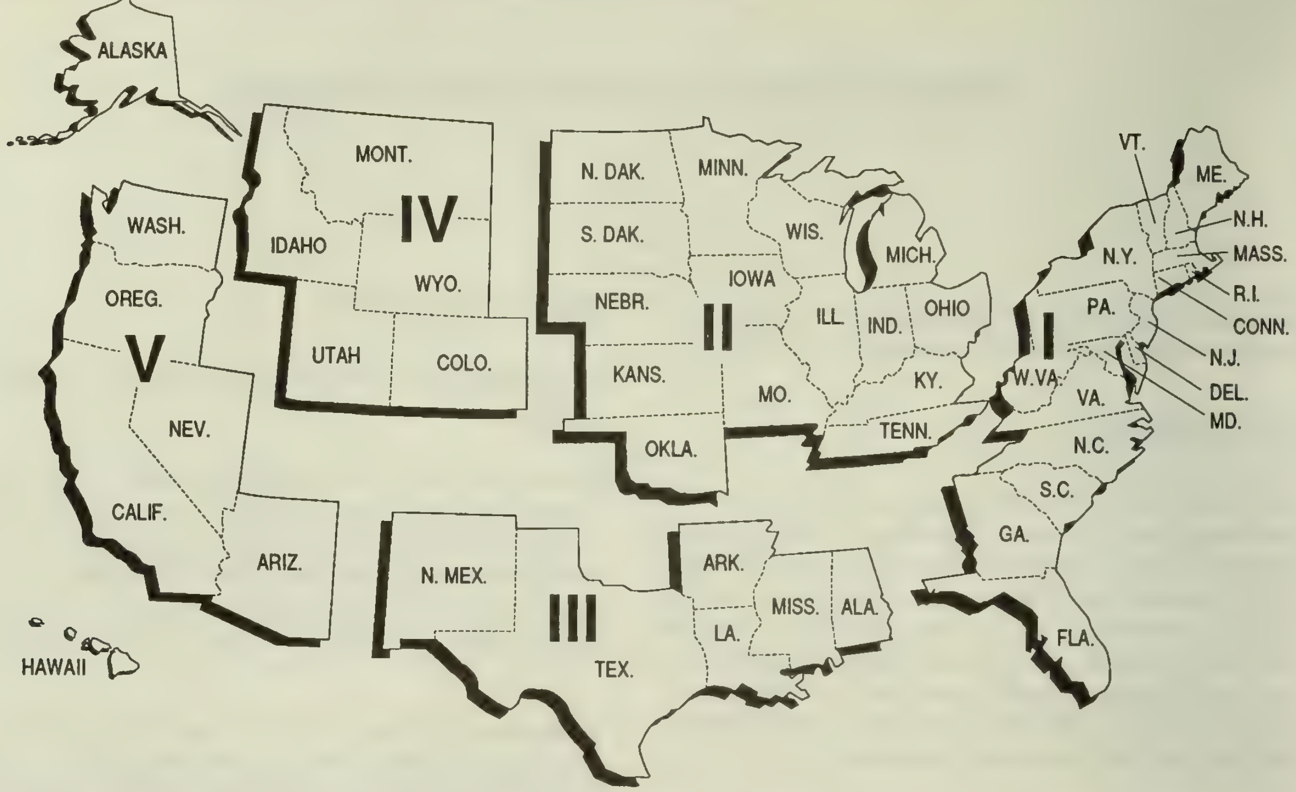
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

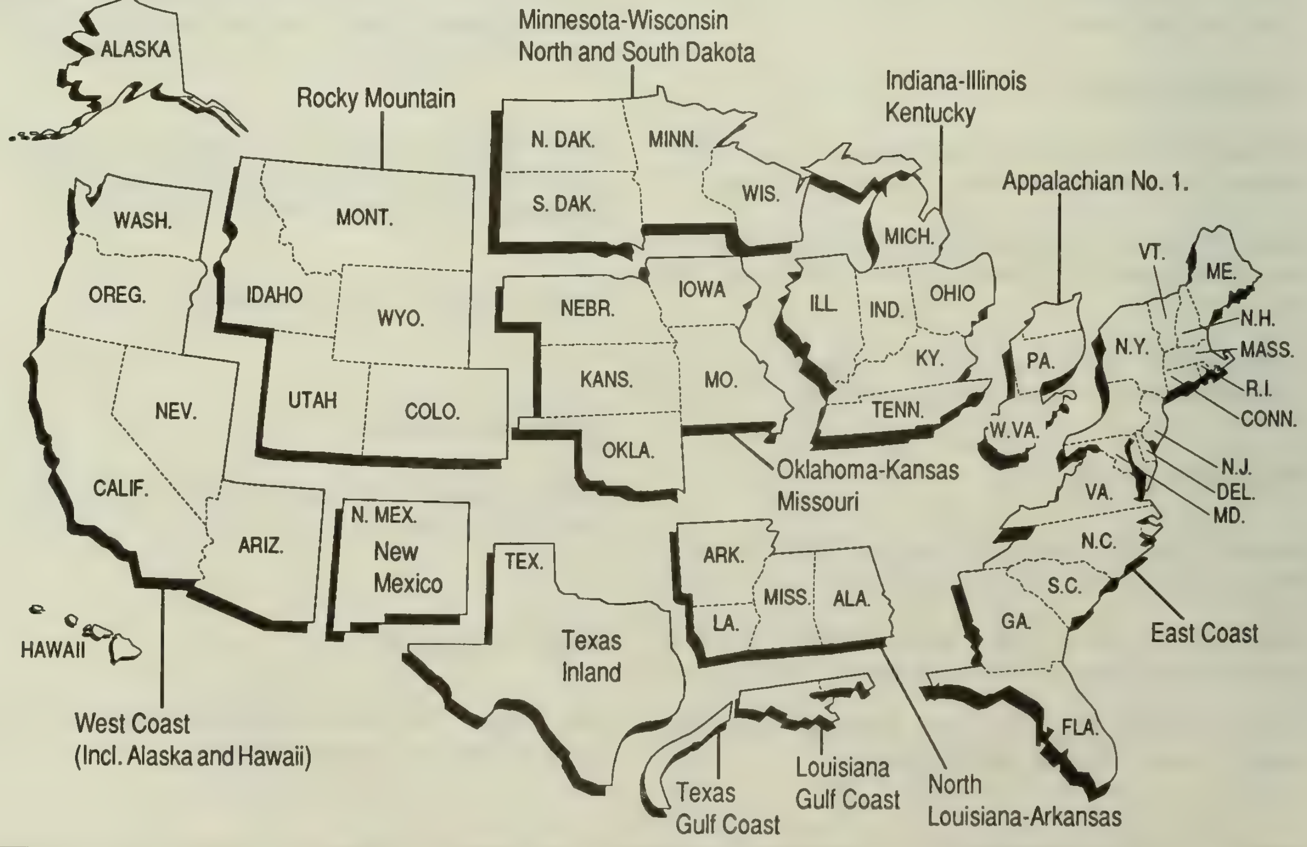
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

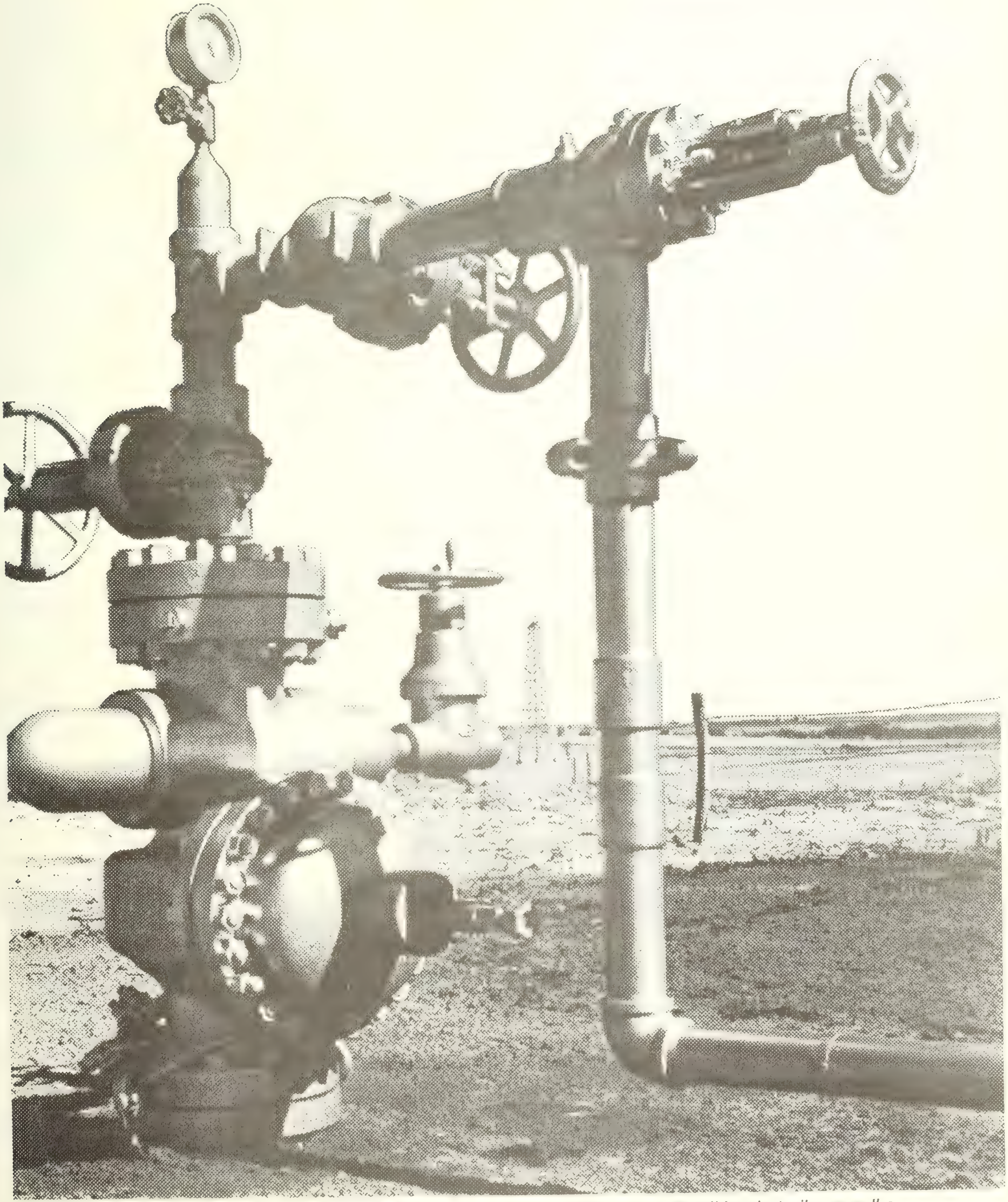


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Appendix B

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*
EIA-820	*Annual Refinery Report*

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report.*

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes I and II.

Summary information on the revision error between preliminary and final data can be found in the feature article entitled, "Timeliness and Accuracy of Petroleum Supply Data" last published in the *PSM* in April 1987. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report,* collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume I .

Note 3. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possesions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possesions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possesions, and (3) from Puerto Rico, the Virgin Islands and other U.S. possesions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report*.

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands, and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of processing facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and stocks located at fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Survey forms can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy (DOE) regulations implementing the FOIA, and the Trade Secrets Act, 18 U.S.C.§ 1905. The information contained on Form EIA-814 is not considered confidential.

Note 4. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are :

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and monthly systems -- the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e.,stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figures, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days betweeen the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System(WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables:

- **Table S1. Crude Oil and Petroleum Products Overview**

The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

Except where otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided depicting the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure		Figure Source
Figure S1.	Petroleum Overview	Table S1
Figure S2.	Petroleum Products Supplied	Table S1
Figure S3.	Crude Oil Supply and Disposition	Table S2
Figure S4.	Crude Oil Ending Stocks	Table S2
Figure S5.	Finished Motor Gasoline Supply and Disposition	Table S4
Figure S6.	Motor Gasoline Ending Stocks	Table S4
Figure S7.	Distillate Fuel Oil Supply and Disposition	Table S5
Figure S8.	Distillate Fuel Oil Ending Stocks	Table S5
Figure S9.	Residual Fuel Oil Supply and Disposition	Table S6
Figure S10.	Residual Fuel Oil Ending Stocks	Table S6
Figure S11.	Liquefied Petroleum Gases Supply and Disposition	Table S7
Figure S12.	Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline,distillate fuel oil, residual fuel oil, and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau fo the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month form the reported inventory levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonlized. The average of the deseasonalized 36-month series dertermines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current month. The tables are organized to locate National and PAD District summary data for the current month at the front. These tables are followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The sources of data for each table are described below:

Column and row headings are defined in the Glossary. The table, form or other source for items of each table, are explained below.

- **Table 1** - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).

    - Lines (1) through (3): Crude Oil Field Production for Alaska, Lower 48 states and Total U.S. are calculated according to Explanatory Note 8.
    - Line (4): Crude Oil Imports excluding Strategic Petroleum Reserve (SPR) reported on Form EIA-814.
    - Line (5): SPR Imports are reported on Form EIA-814.
    - Line (6): Exports of crude oil taken from Census tapes and data reported on Form EIA-810 for U.S. territories.
    - Line (7): Sum of lines (4) through (6).
    - Line (8): The difference between the previous month and current month ending stocks held in the SPR.
    - Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
    - Line (10): The sum of Crude Oil Products Supplied and Crude Losses as shown in Table 2.
    - Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
    - Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
    - Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
    - Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
    - Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.
    - Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.
    - Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).
    - Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (19): The sum of unfinished oils and motor and aviation gasoline blending components imports reported on Form EIA-814.

- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.

- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.

- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.

- Line (23): Total Other Liquids equals the sum of lines (18) through (22).

- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).

- Line (25): Gross Imports of Refined Products equals imports of LPG plus imports of finished petroleum products as shown in Table 2.

- Line (26): Exports of Refined Products equals exports of LPG plus exports of finished petroleum products as shown in Table 2.

- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).

- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).

- Line (29): Refined Products Stock Change equals the sum of stock change for LPG and finished petroleum products in Table 2.

- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.

- Lines (31) through (34): Equal the respective products supplied of same in Table 2.

- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.

- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude oil in Table 2.

- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.

- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.

- Line (44): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviatin gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on historical statistics from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 8 for further detail.

Field production of natural gas plant liquids are reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and appear on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report*. Refinery production of other hydrocarbons/hydrogen and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report*.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report*, as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report*, that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report*. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.
- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.
- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.
- **Tables 6-15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.
- **Table 16** - State conservation agencies and U. S. Minerals Management Service of the U.S. Department of the Interior. See Explanatory Note 8.

  Table 16 provides estimates of crude oil production for ths latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report.*

  Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report.*
- **Table 19** - Form EIA-810, *Monthly Refinery Report.*

  Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*
- **Table 21** - Calculated from Tables 18 and 19.

  To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

  To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

  To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline) the following calculation is performed. Production for each product's net refinery production listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*
- **Tables 35 through 38** - Census export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*
- **Table 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594), and Form EIA-810, *Monthly Refinery Report.*

  A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41**- Primary stocks of crude oil are the sum of ending stocks reported monthly on the Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum product are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.
- **Table 42**- Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report.*
- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*
- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report*. Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.
- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*. After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports of the various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.
- The intitial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual.*
- The final estimate is published in the *PSA*.

Note 9. Export Data Source

Background

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month

Date of Data Availability	Month of Production 6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89
Reported State Data[c]																		
7-14-88	0																	
8-14-88	2051	0																
9-14-88	5005	2032	0															
10-14-88	7904	5083	2128	0														
11-14-88	7995	7710	5081	2105	0													
12-14-88	7996	7775	7808	4957	2098	0												
1-14-89	7997	7776	7809	7231	4770	2051	0											
2-14-89	7998	7859	7901	7651	7296	4887	2086	0										
3-14-89	8055	7896	7936	7741	7731	7320	5083	2016	0									
4-14-89	8161	8032	8071	7851	7980	7892	7370	4260	2047	0								
5-14-89	8170	8039	8079	7893	7987	7988	7817	7063	2396	1755	0							
6-14-89	8170	8039	8079	7893	8021	8021	7941	7199	6171	2373	1987	0						
7-14-89	8176	8043	8080	7892	8023	8026	7956	7748	7032	6858	4279	2048	0					
8-14-89	8176	8043	8080	7892	8023	8026	7957	7748	7644	6969	6290	4565	1930	0				
9-14-89	8179	8045	8084	7896	8028	8030	7966	7783	7650	7437	7193	6423	2748	1789	0			
10-14-89	8181	8045	8091	7903	8028	8033	7971	7816	7683	7472	7630	7211	7008	4491	1939	0		
11-14-89	8181	8045	8091	7903	8028	8033	7971	7816	7683	7472	7665	7663	7023	6825	4796	1974	0	0
Producing States Without Reported Monthly Production[d]																		
10-14-89	0	0	0	0	0	0	0	5	5	5	5	6	7	7	13	27	33	33

	Month of Production 6-88	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89
Production Estimate																		
Original[e]	8210	8189	8128	8147	8085	8026	8035	8021	7965	7645	7786	7843	7726	7622	7662	7641	7644	7601
Interim[f]	8158	8059	8063	7900	7974	7985	7975	7913	7830	7610	7747	7807	7660	7474	7589	7563		
Form EIA-182																		
Initial	8045	7853	7895	7752	7797	7821	7845	7746	7663	7533	7559	7636	7544	7351	7497	7442		
Revised	8044	7839	7896	7755	7798	7830	7834	7775	7689	7517	7563	7686	7541	7351	7499			
Final[g]	8170	8040	8079	7895	8023	8023	7942											

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1988 (annual average of 104 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan, New York, and Ohio are counted as having monthly reported data in 1988 after their annual reports were received. These data were first reported as of 4-14-89. Pennsylvania is counted as having monthly reported data in 1988 after its annual report was received. These data were first reported as of 5-14-89.

[e] Original estimates were made on the first of each month. The original estimate for March 1989 was revised on April 3, 1989, to reflect the Alaskan oil spill.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1988 DOE/EIA 0340(88)/2.

Export Statistics

Census export statistics used in the *Petroleum Supply Monthly* (PSM) reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 10. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) tracks the supply and dispostion of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly surveys and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, summary information on the revision error between preliminary and final data are published in a feature article in the *Petroleum Supply Monthly* (PSM) entitled, "Timeliness and Accuracy of Petroleum Supply Data". Also, a comparison of the data collected on the Monthly Petroleum Supply Reporting System (MPSRS) with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published in the *PSM* feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 11. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement routine frames maintenance activities and provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
  Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B2 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement.* The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Monthly Petroleum Supply Reporting System (MPSRS) surveys were modified beginning in January 1984. They were:

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *Petroleum Supply Monthly* (PSM) that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6 through 10, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products."

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 6 through 10 were reported at the *PAD District of entry* rather than at the *PAD District of processing. Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
  - A line was added to report crude oil movements.

- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect. These changes affected the number of operators of petroleum facilities required to complete the monthly surveys in the MPSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report.* The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSM* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
  - Alaskan crude oil receipts were shown separately.

- Table 14, "Refinery Production of Petroleum Products by PAD District."

Table B6. Impact of New Respondents to December 1985 PSM Data

Product	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

[a] Stocks as of December 31, 1985.

  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.

- Table 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.

- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

- Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affects *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSM* statistics. The principal differences in the *PSM* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989:

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene) were added to Form EIA-810, *Monthly Refinery Report.*

- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*

- Bonded imports of jet fuel and fuel oils and imports of liquefied petroleum gases (LPGs) previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*

- Exports of butane/propane and ethane/propane mixtures are split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.

- The reporting of products other than Natural Gas Liquids by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

- Fractionators were required to report only end-of-month stocks of natural gas liquids on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

Summary Statistics Tables

- "Stock Withdrawal" was renamed "Stock Change" and is a Disposition item rather than a Supply one. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year to date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."

  - Stocks at natural gas processing plants by Refining Districts were moved from the old Table 24 stock table and included with net production of petroleum products at natural gas plants.

  - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."

  - Net production of olefins (ethylene, propylene, and butylene) was added.

  - Net production of naphthenic and paraffinic lubricants were added.

  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."

  - Stocks at refineries by Refining District were added from the old stock table (Table 24).

  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."

  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemicl feedstock use, lubricants, and asphalt and road oil.

  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination."

  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District."

  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.

  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

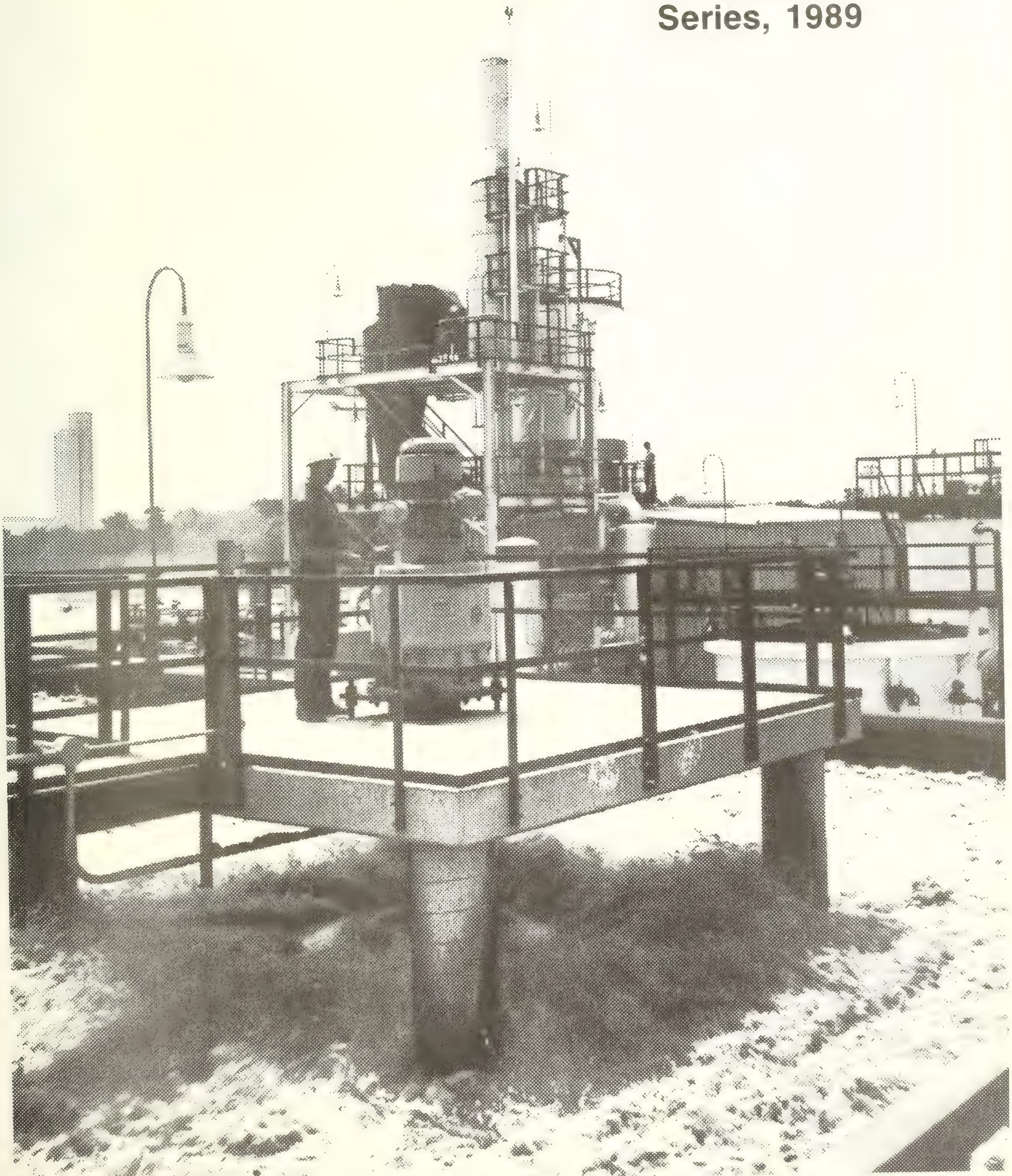
Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

Appendix C

Impact of Resubmissions on Major Series, 1989



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1989
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs												
Crude Oil	13,330	3	12,774	-6	12,963	(s)	12,953	(s)	13,395	(s)	13,896	1
LPGs	421	(s)	331	-2	278	-2	245	-3	226	0	255	0
Production												
LPGs	1,876	8	1,795	3	1,899	11	1,950	(s)	1,945	-3	1,823	(s)
Finished Motor Gasoline	6,935	2	6,648	2	6,615	0	6,820	-9	6,931	-38	7,289	-16
Naphtha-Type Jet Fuel	191	(s)	190	(s)	209	0	196	0	216	1	211	(s)
Kerosene-Type Jet Fuel	1,312	(s)	1,216	-2	1,188	(s)	1,074	(s)	1,031	0	1,139	(s)
Kerosene	110	(s)	70	(s)	76	0	67	0	46	(s)	70	(s)
Distillate Fuel Oil	2,973	(s)	2,798	-1	2,714	(s)	2,788	(s)	2,748	(s)	2,808	-2
Residual Fuel Oil	948	(s)	929	(s)	936	(s)	903	(s)	931	(s)	951	-2
Imports												
Crude Oil	5,521	131	5,263	33	4,993	16	5,745	0	5,665	15	5,915	12
Finished Motor Gasoline	349	3	392	39	381	0	371	-1	356	-1	391	-5
Naphtha-Type Jet Fuel	3	0	2	0	4	0	3	0	10	0	4	0
Kerosene-Type Jet Fuel	82	4	117	0	96	1	125	0	110	0	108	8
Distillate Fuel Oil	331	16	322	1	439	0	299	2	290	0	233	(s)
Residual Fuel Oil	877	24	863	4	703	3	681	0	526	10	515	11
Other Products	647	(s)	683	28	622	21	689	16	630	4	556	33
Stocks (Thousand Barrels)												
Crude Oil	333,291	588	332,698	116	326,315	161	339,413	145	345,263	309	331,054	142
Unfinished Oils	102,390	-153	104,703	-60	108,477	-5	111,663	-146	114,642	188	113,408	232
LPGs	86,958	-4	77,535	87	75,048	10	83,819	104	97,178	-90	105,160	-5
Total Motor Gasoline	248,549	38	247,097	389	230,000	350	227,492	-207	223,611	-384	216,618	-254
Naphtha-Type Jet Fuel	6,624	2	6,379	2	6,118	0	6,079	0	6,139	37	6,190	4
Kerosene-Type Jet Fuel	37,863	-76	37,368	-451	37,856	-685	38,101	0	39,243	0	38,411	-3
Distillate Fuel Oil	120,290	334	107,549	65	96,625	146	98,378	33	99,296	87	99,419	183
Residual Fuel Oil	46,966	316	45,982	-99	42,400	-398	40,195	-3	42,567	-3	44,764	-457
Product Supplied												
LPGs	2,051	8	2,038	3	1,813	16	1,506	-1	1,354	3	1,416	-3
Finished Motor Gasoline	6,732	-4	7,095	30	7,421	3	7,150	6	7,416	-35	7,803	-25
Naphtha-Type Jet Fuel	174	0	200	(s)	211	(s)	200	0	224	0	213	1
Kerosene-Type Jet Fuel	1,315	6	1,330	12	1,267	8	1,175	-23	1,103	0	1,273	8
Distillate Fuel Oil	3,296	5	3,411	10	3,429	-3	2,973	6	2,957	-2	2,998	-5
Residual Fuel Oil	1,596	13	1,681	19	1,535	12	1,421	-13	1,105	10	1,184	25
Major Products Supplied	15,164	28	15,755	73	15,676	36	14,425	-25	14,159	-24	14,887	1

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1989 (Continued)
(Thousand Barrels per Day, Except Where Noted)

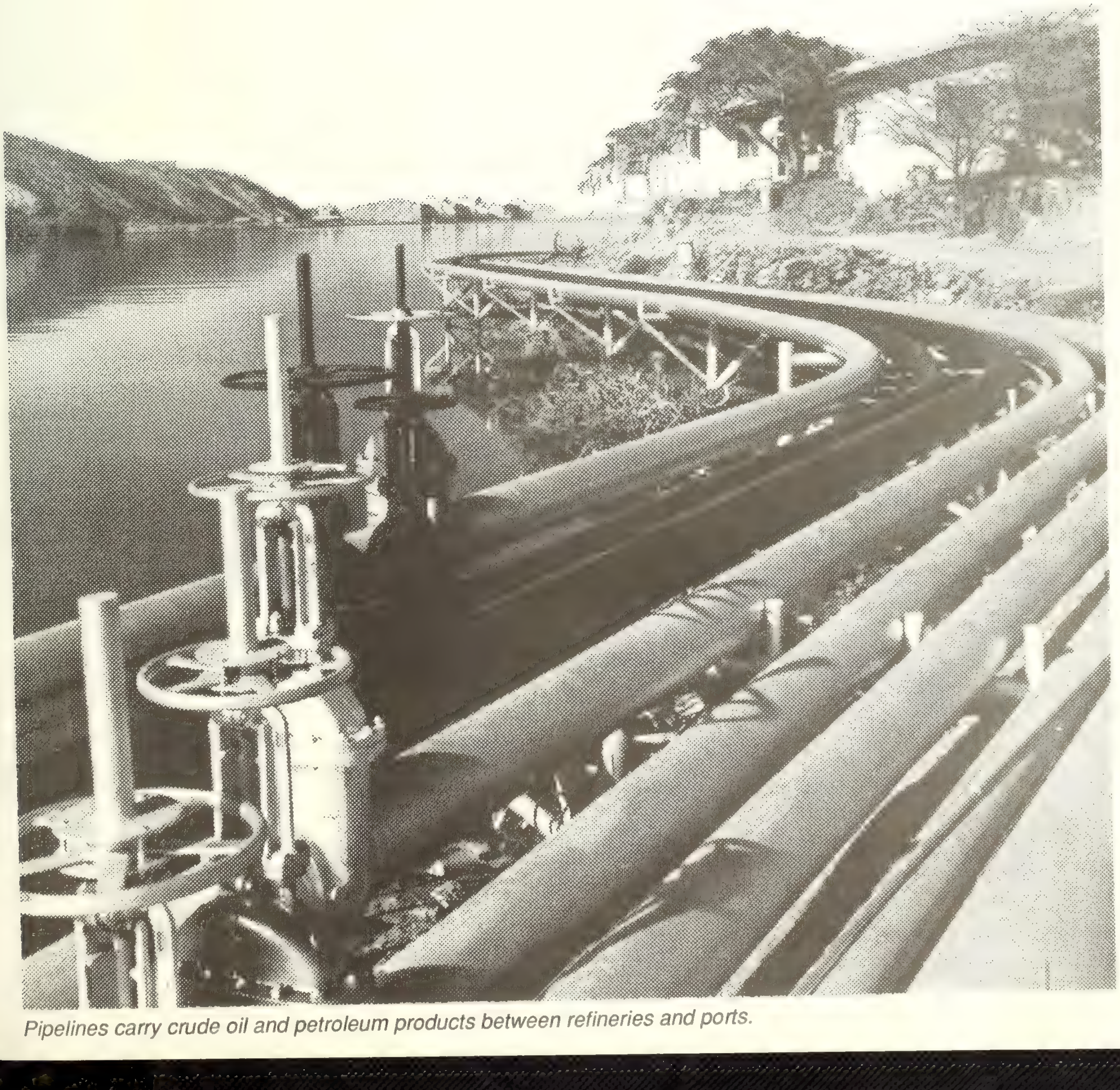
	July		August		September		October		November		December		Year to Date
Product	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs													
Crude Oil	13,843	(s)	--	--	--	--	--	--	--	--	--	--	0
LPGs	247	0	--	--	--	--	--	--	--	--	--	--	-1
Production													
LPGs	1,858	-9	--	--	--	--	--	--	--	--	--	--	1
Finished Motor Gasoline	7,355	3	--	--	--	--	--	--	--	--	--	--	-8
Naphtha-Type Jet Fuel	216	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	1,194	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene	55	0	--	--	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	2,846	0	--	--	--	--	--	--	--	--	--	--	-1
Residual Fuel Oil	860	0	--	--	--	--	--	--	--	--	--	--	0
Imports													
Crude Oil	6,200	-5	--	--	--	--	--	--	--	--	--	--	29
Finished Motor Gasoline	398	-15	--	--	--	--	--	--	--	--	--	--	3
Naphtha-Type Jet Fuel	3	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	111	0	--	--	--	--	--	--	--	--	--	--	2
Distillate Fuel Oil	335	-1	--	--	--	--	--	--	--	--	--	--	3
Residual Fuel Oil	546	0	--	--	--	--	--	--	--	--	--	--	7
Other Products	544	23	--	--	--	--	--	--	--	--	--	--	18
Stocks (Thousand Barrels)													
Crude Oil	332,058	1,332	--	--	--	--	--	--	--	--	--	--	399
Unfinished Oils	108,945	0	--	--	--	--	--	--	--	--	--	--	8
LPGs	117,702	102	--	--	--	--	--	--	--	--	--	--	29
Total Motor Gasoline	228,853	-72	--	--	--	--	--	--	--	--	--	--	-20
Naphtha-Type Jet Fuel	6,620	0	--	--	--	--	--	--	--	--	--	--	6
Kerosene-Type Jet Fuel	40,783	-3	--	--	--	--	--	--	--	--	--	--	-174
Distillate Fuel Oil	114,974	9	--	--	--	--	--	--	--	--	--	--	122
Residual Fuel Oil	42,950	0	--	--	--	--	--	--	--	--	--	--	-92
Product Supplied													
LPGs	1,348	-13	--	--	--	--	--	--	--	--	--	--	2
Finished Motor Gasoline	7,316	-14	--	--	--	--	--	--	--	--	--	--	-6
Naphtha-Type Jet Fuel	203	(s)	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet Fuel	1,219	0	--	--	--	--	--	--	--	--	--	--	2
Distillate Fuel Oil	2,592	5	--	--	--	--	--	--	--	--	--	--	2
Residual Fuel Oil	1,287	-15	--	--	--	--	--	--	--	--	--	--	7
Major Products Supplied	13,965	-37	--	--	--	--	--	--	--	--	--	--	7

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr. 60^\circ F/60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° F to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included,

but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil .*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400° F at the 10-percent recovery point and 550° F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540° F and 640° F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:
>
> > ***No. 1-D.*** A volatile distillate fuel oil with a maximum distillation temperature of 550° F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
> >
> > ***No. 2-D.*** A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640°F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C_2H_6). It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.

2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit are reprocessed are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° F to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, (C6H14). It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C4); an alkylation process feedstock, and normal pentane and hexane into isopentane, (C5); and isohexane, (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> ***Paraffinic.*** Includes all grades of bright stock and neutrals with a Viscosity Index >75.
>
> ***Naphthenic.*** Includes all lubricating oil base stocks with a Viscosity Index <75.
>
> ***Note:*** The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> ***Exceptions:*** Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted paraffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and speciality oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

> ***Finished Leaded Gasoline.*** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of

phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 °F.

Naphtha Less Than 401° F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, ($C5H12$), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401° F. *See Petrochemical Feedstocks.*

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401° F" and "Other Oils Equal To or Greater Than 401° F."

> ***Naphtha Less Than 401° F.*** A naphtha with a boiling range of less than 401° F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401° F.*** Oils with a boiling range equal to or greater than 401° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in

ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids; other hydrocarbons and alcohol; and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000° F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

> ***Microcrystalline Wax.*** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 °F (D1321)-60 maximum. Viscosity at 210° F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.
>
> ***Crystalline-Fully Refined Wax.*** A light-colored paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.
>
> ***Crystalline-Other Wax.*** A paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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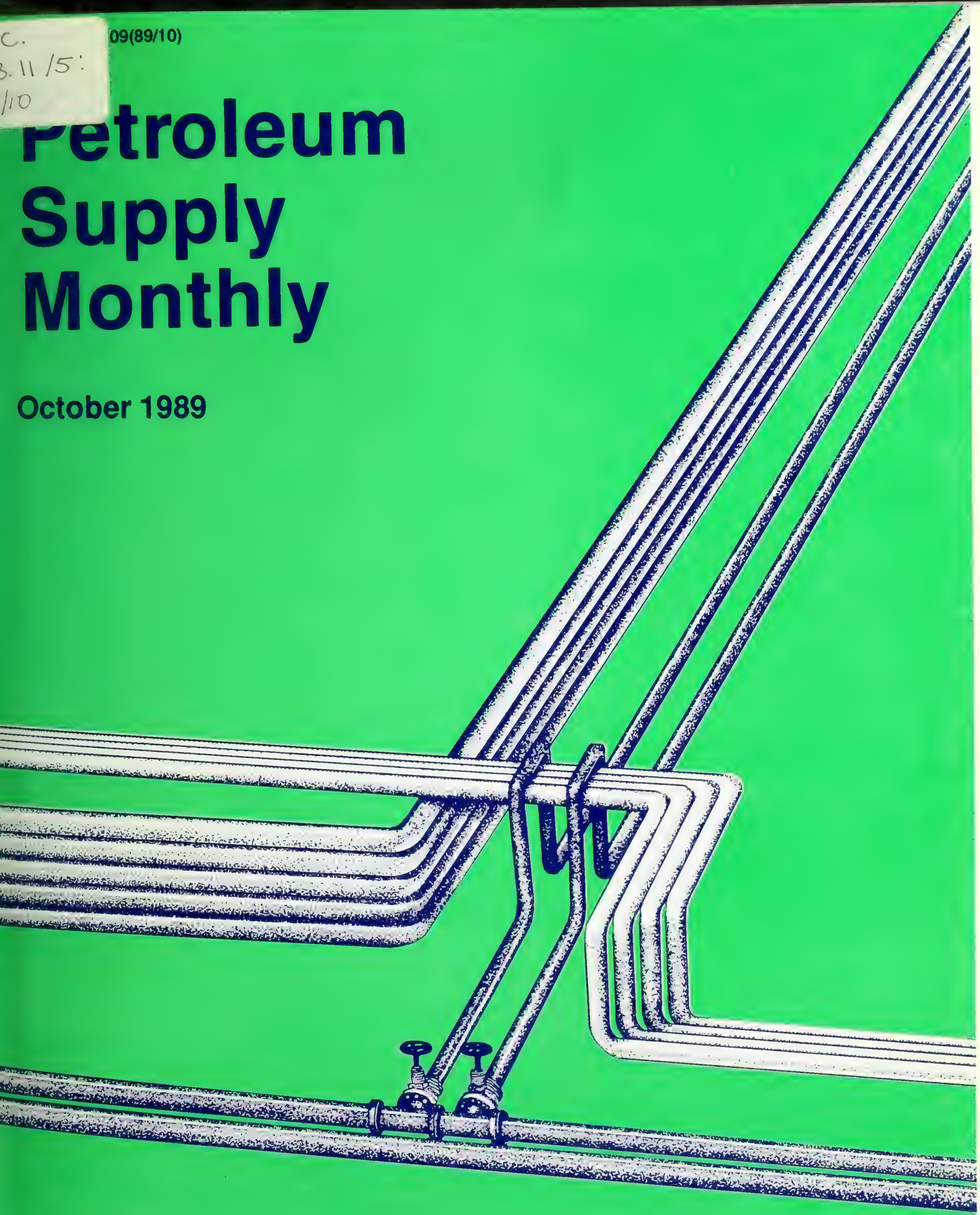

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Cover: An artist's rendering of a typical pipeline network moving crude oil and petroleum products at a refinery complex.

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Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in "Primary Supply." Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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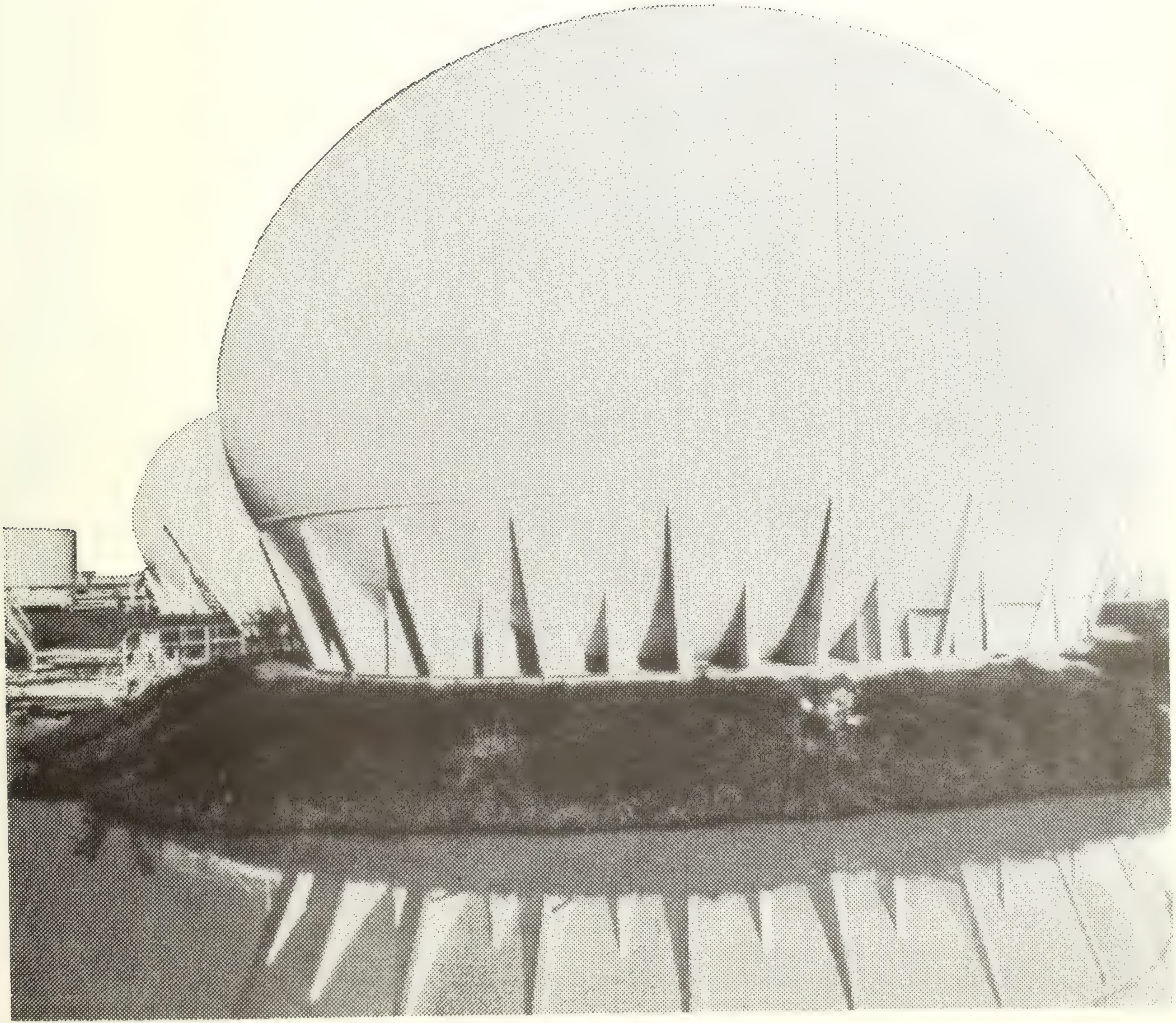
Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Total demand for petroleum products (measured as product supplied) in the United States increased moderately to 17.1 million barrels per day in October (Table H1), as demand for heating fuels increased from September 1989 levels. Demand for motor gasoline was about the same as for September 1989. Demand during the first 10 months of 1989 was slightly below the level for the comparable period in 1988 for most petroleum products.

Petroleum operations were not greatly affected by the major earthquake that hit Northern California on October 17, 1989. Some petroleum facilities suffered minimal damage, but normal operations were resumed after initial inspections.[1]

Other October 1989 highlights include:

- Distillate fuel oil demand showed a seasonal increase, while stocks were at the low end of the normal range of recent years.
- Demand for residual fuel oil increased to a more normal level from the unusually low demand in September.
- A moderate increase in demand for liquefied petroleum gases (LPGs) was due to continued strong demand for propane. A substantial decline in butane stocks occurred, as refiners moved excess inventory into winter gasoline blending operations.
- The impact of Hurricane Hugo continued to affect crude oil exports to the Virgin Islands and product imports from the area.
- Domestic crude oil production was at the lowest level for the year, primarily due to the effects of Hurricane Jerry, which hit the Gulf of Mexico in October. During the first 10 months of 1989, crude oil imports, excluding those for the Strategic Petroleum Reserve (SPR), increased to fill the gap between supply and demand, as refinery inputs of crude oil were at the highest levels since 1980.
- Gross inputs to atmospheric distillation and downstream units showed seasonal declines.

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[1] More detailed information about the effects of the Northern California earthquake were included in the "News Highlights" in the August 1989 *Petroleum Supply Monthly*, p. xvii.

Domestic crude oil production declined 0.1 million barrels per day, largely because some production rigs in the Gulf of Mexico had to be shut down for several days when Hurricane Jerry hit the Gulf of Mexico in mid-October.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1989			1988	January — October	
	October	September	Difference[a]	October	1989	1988
Products Supplied	**17.1**	**16.6**	**0.5**	**17.6**	**17.1**	**17.1**
Finished Motor Gasoline	7.3	7.2	(s)	7.3	7.3	7.3
Distillate Fuel Oil	3.1	2.9	0.2	3.2	3.1	3.1
Residual Fuel Oil	1.3	1.0	0.3	1.3	1.3	1.3
Liquefied Petroleum Gases	1.7	1.6	0.1	1.8	1.6	1.6
Other Petroleum Products[b]	3.8	4.0	-0.2	3.9	3.7	3.8
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	**13.4**	**13.8**	**-0.4**	**13.1**	**13.4**	**13.2**
Operable Utilization Rate (percent)	**86.1**	**88.4**	**-2.3**	**83.4**	**86.6**	**84.4**
Imports	**8.2**	**7.9**	**0.3**	**7.8**	**8.0**	**7.3**
Crude Oil	**6.2**	**6.0**	**0.1**	**5.6**	**5.8**	**5.1**
Strategic Petroleum Reserve	(s)	0.1	(s)	(s)	0.1	0.1
Other	6.1	6.0	0.2	5.5	5.7	5.0
Products	**2.1**	**1.9**	**0.1**	**2.3**	**2.2**	**2.2**
Finished Motor Gasoline	0.4	0.3	0.1	0.4	0.4	0.4
Distillate Fuel Oil	0.3	0.2	(s)	0.3	0.3	0.3
Residual Fuel Oil	0.6	0.4	0.2	0.6	0.6	0.6
Liquefied Petroleum Gases	0.2	0.2	(s)	0.2	0.2	0.2
Other Petroleum Products[b]	0.7	0.8	-0.1	0.8	0.7	0.7
Exports	**0.8**	**0.7**	**0.1**	**0.7**	**0.8**	**0.8**
Crude Oil	0.1	(s)	(s)	0.2	0.1	0.2
Products	0.7	0.6	0.1	0.6	0.7	0.6
Total Net Imports	**7.4**	**7.3**	**0.2**	**7.1**	**7.2**	**6.5**
Stock Change[c]	**-0.2**	**0.5**	**-0.7**	**0.1**	**0.2**	**0.1**
Crude Oil	0.1	-0.1	0.2	0.4	0.1	(s)
Products	-0.3	0.6	-0.9	-0.3	0.1	0.1
Total Stocks at End of Period (million barrels)	**1,663**	**1,670**	**-6**	**1,630**	--	--
Crude Oil	**914**	**912**	**2**	**896**	--	--
Strategic Petroleum Reserve	578	577	1	556	--	--
Other	336	335	1	340	--	--
Products	**749**	**757**	**-8**	**735**	--	--
Finished Motor Gasoline	184	186	-2	180	--	--
Distillate Fuel Oil	121	122	-1	128	--	--
Residual Fuel Oil	51	50	2	42	--	--
Liquefied Petroleum Gases	119	126	-8	120	--	—
Other Petroleum Products[b]	274	273	(s)	264	--	--

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[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly,* see Explanatory Note 5.

Distillate Fuel Oil

Demand for distillate fuel oil increased to 3.1 million barrels per day in October, with the beginning of the winter heating season. Warmer weather than normal in October 1989 moderated the seasonal increase in demand for heating oil. Year-to-date demand was essentially unchanged from the level during the first 10 months in 1988.

For the fourth consecutive year, distillate fuel oil stocks declined in October. This is a reversal of the pre-1986 trend in which substantial stock buildups occurred in October to prepare for winter heating oil demand. The growing importance of diesel fuel relative to heating oil in recent years has lessened seasonal variations in demand, and reduced the need for substantial inventory buildups at this time of year. Ending stocks of 121 million barrels in October were within the normal range for recent years.

Residual Fuel Oil

Demand for residual fuel oil increased to a more normal level from the unusually low level in September, reaching 1.3 million barrels per day in October. The increase occurred despite steady residual fuel oil (1 percent sulfur) price increases on the New York spot market since late summer. Heating requirements contributed to the increase in demand. Year-to-date demand remained close to the comparable 1988 level, as relatively high residual fuel oil prices during 1989 depressed demand growth.

Liquefied Petroleum Gases

Demand for LPGs increased moderately in October to 1.7 million barrels per day. The increase was the result of strong demand for propane used for heating and petrochemical feedstocks. Demand for butane remained stable, but refinery inputs for gasoline blending increased substantially. Federal summer gasoline vapor pressure restrictions, which had affected butane inputs, ended September 15, 1989, making October the first month without such restrictions since June 1989. Year-to-date demand for LPGs was unchanged from the level for the comparable period in 1988.

Stocks of LPGs, which had been substantially above year-earlier levels since February 1989, declined to 119 million barrels in October. This was about the same level as stocks at the end of October 1988. Both propane and butane stocks showed substantial declines. Propane stocks were withdrawn to accommodate heating and petrochemical feedstock requirements. Butane stocks also fell, as refiners moved excess inventory into gasoline blending operations.

Virgin Island Imports and Exports

The impact of Hurricane Hugo continued to affect crude oil exports to the Virgin Islands and product imports from the area in October. As in September 1989, crude oil exports in October were well below the 1989 and 1988 average of 0.1 million barrels per day. Product imports from the Virgin Islands, which had averaged 0.4 million barrels per day before Hurricane Hugo damaged the Amerada Hess Refinery in St. Croix in mid-September 1989, were reduced by 50 percent in September and October. Despite the loss of approximately half the normal imports from the Virgin Islands, product stocks on the East Coast at the end of October were at normal levels to meet demand.[2]

Crude Oil

Domestic crude oil production was at the lowest level for the year in October, at an estimated 7.5 million barrels per day. Hurricane Jerry, which hit the Gulf of Mexico in October, was the primary cause of the decline of 0.1 million barrels per day from the September level. Alaskan production was about the same as in September 1989. For the first 10 months of 1989, production from the Lower-48 States declined 6 percent from the comparable 1988 level. This compares to a decline of 4 percent from 1987 levels during the first 10 months of 1988. Alaskan year-to-date production declined 8 percent from 1988 to 1989, reversing the 4 percent increase for the comparable period of 1988 over 1987.

With domestic crude oil production falling and refinery inputs of crude oil at the highest level since 1980, higher imports were necessary to balance crude oil supply and demand during the first 10 months of 1989. Crude oil imports (excluding SPR) for January through October 1989 were 14 percent higher than during the comparable period of 1988.

Refinery Utilization

The operable refinery utilization rate decreased to 86.1 percent in October, primarily because gross refinery inputs (crude and other oils) declined 0.4 million barrels per day. Operable capacity remained at 15.7 million barrels per day. The operating utilization rate, which reflects refinery utilization if all idle capacity is removed from the operable capacity, declined to 90.5 percent in October 1989 (Table H2). Operable and operating utilization rates were higher during October 1989 than during the same month in 1988.

Inputs to selected downstream units showed a seasonal decline of 0.5 million barrels per day during October to 6.6 million barrels per day. Inputs of fresh feed to catalytic

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[2] Information about damage caused by Hurricane Hugo was included in the "News Highlights" in the July 1989 issue of the *Petroleum Supply Monthly*, pp. xxxvii and xxxviii.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1988-1989
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1988												
Gross Refinery Inputs	13,175	12,889	13,241	13,346	13,638	13,710	13,804	13,953	13,356	13,304	13,354	13,554
Operable Refinery Capacity	15,915	15,942	15,888	15,888	15,909	15,934	15,958	15,958	15,965	15,946	15,909	15,919
Idle Capacity[1]	**897**	**1,020**	**873**	**902**	**930**	**1,103**	**1,107**	**1,065**	**841**	**829**	**828**	**1,032**
Idle Three Months or Less	550	368	185	99	235	398	403	248	22	8	75	280
Idle More than Three Months	347	652	688	803	695	705	704	817	819	821	753	752
Operating Capacity[2]	15,018	14,922	15,015	14,986	14,979	14,831	14,851	14,893	15,124	15,117	15,081	14,887
Utilization Rate (percent)												
Operable Capacity	82.8	80.9	83.3	84.0	85.7	86.0	86.5	87.4	83.7	83.4	83.9	85.1
Operating Capacity	87.7	86.4	88.2	89.1	91.0	92.4	92.9	93.7	88.3	88.0	88.5	91.0
1989												
Gross Refinery Inputs	13.510	13,011	13,159	13,130	13,561	14,055	13,954	14,021	13,891	13,531	NA	NA
Operable Refinery Capacity	15,689	15,694	15,663	15,665	15,679	15,685	15,685	15,689	15,709	15,722	NA	NA
Idle Capacity[1]	**643**	**725**	**738**	**726**	**830**	**575**	**602**	**618**	**759**	**775**	**NA**	**NA**
Idle Three Months or Less	175	261	225	177	302	46	54	65	211	200	NA	NA
Idle More than Three Months	468	464	513	549	528	529	548	553	548	575	NA	NA
Operating Capacity[2]	15,046	14,969	14,925	14,940	14,848	15,111	15,084	15,071	14,950	14,946	NA	NA
Utilization Rate (percent)												
Operable Capacity	86.1	82.9	84.0	83.8	86.5	89.6	89.0	89.4	88.4	86.1	NA	NA
Operating Capacity	89.8	86.9	88.2	87.9	91.3	93.0	92.5	93.0	92.9	90.5	NA	NA

[1] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

[2] Operating capacity equals the operable capacity less the total idle capacity.

NA= Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly,* 1989 issues, Table 18; *Petroleum Supply Annual,* Volume 2, 1988, Table 11; Form EIA- 810, "Monthly Refinery Report."

Table H2 has been added to the Highlights Section of the *Petroleum Supply Monthly* to provide supplemental information on the operational status of U.S. refineries. The table includes a breakout of idle capacity into two time segments; (1) capacity reported by refineries that has been idle for three or fewer months and (2) capacity that has been idle for more than three months. In addition, the utilization rate of that portion of total refinery capacity reported by refineries in the "operating" status has been calculated and is provided in the table.

crackers, catalytic hydrocrackers, and cokers all decreased. The decline in downstream refining during October reflected a reduction in motor gasoline production requirements.

News Highlights

Inputs of Foreign Crude Oil Increase in PAD II

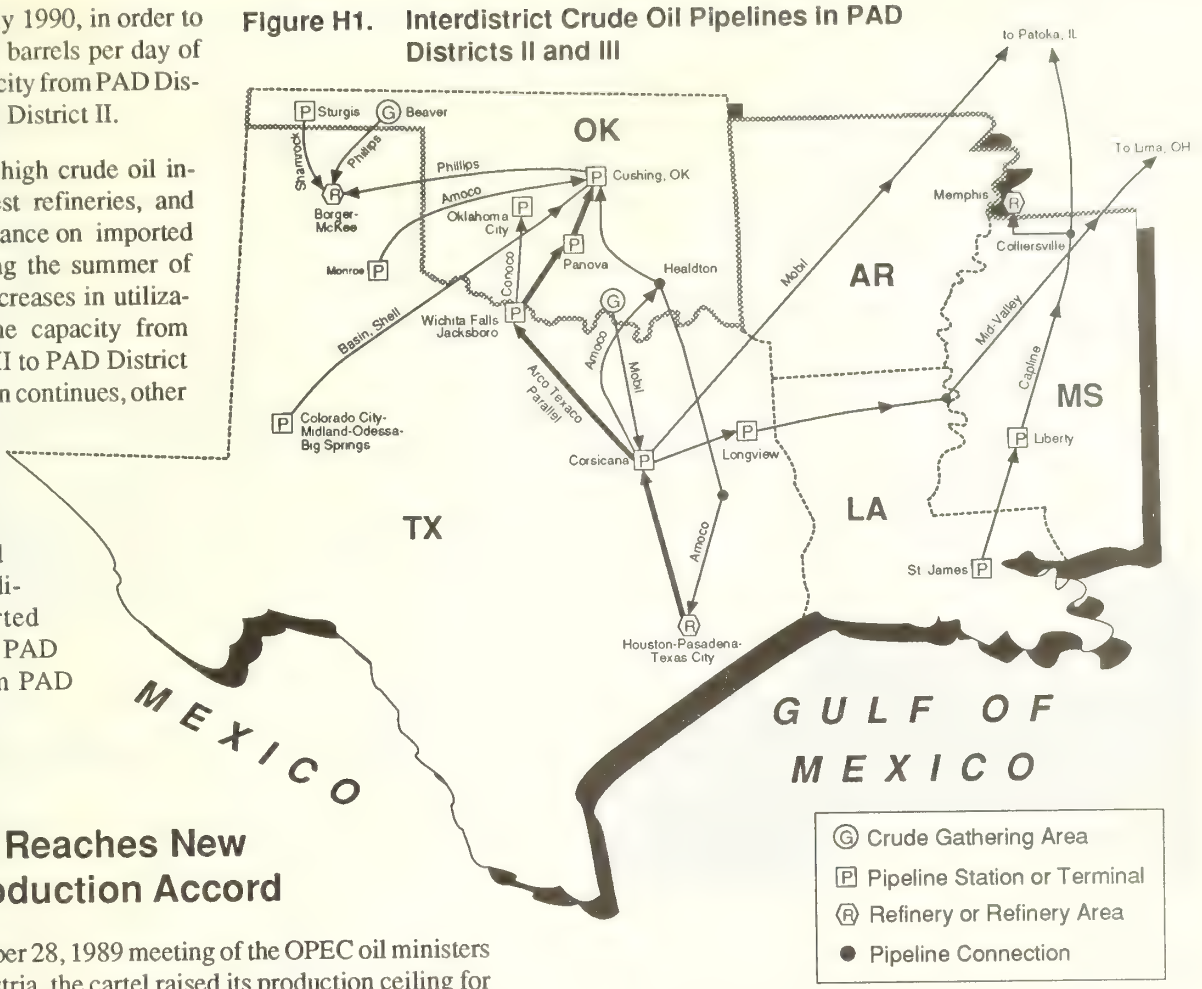
Inputs of imported crude oil at midwest (PAD District II) refineries increased from 0.6 million barrels per day in 1985 to 1.0 million barrels per day during the first 10 months of 1989. Imported crude oil provided 22 percent of the refinery inputs of crude oil in PAD District II in 1985 and 36 percent during the first 10 months in 1989. The rising importance of imported crude oil to refineries in the Midwest is due to declining domestic production combined with higher crude oil inputs to meet rising petroleum product demand.

Much of the imported crude oil input to refineries in PAD District II is received at ports along the Gulf of Mexico, then shipped north by pipeline. The Capline System, with an average summer throughput capacity of 1.1 million barrels per day, moves most of the crude oil transported from the Gulf Coast (PAD District III) to the Midwest. However, the increased reliance on imported crude oil in PAD District II has created a need for additional pipeline capacity from PAD District III to PAD District II. This need for increased crude oil pipeline capacity is being met largely by reversing the flow of crude oil in under-utilized pipelines which were originally constructed to supply domestically produced crude oil to refineries in the Houston, Texas, area. Capacity expansion on existing pipeline systems is another method being used to meet the growing demand for pipeline transport of crude oil. New pipeline construction appears unlikely at present due to restrictive environmental regulations and high costs.

In March 1988, ARCO Pipeline Company reversed the flow in its 70,000 barrel-per-day crude oil pipeline from Cushing, Oklahoma, to Houston, Texas, to allow imported crude oil from the Houston area to be moved north to Cushing and then to refineries in PAD District II (Figure H1). ARCO intends to increase the capacity of the reversed pipeline to 100,000 barrels per day in 1990. A Texaco pipeline that once carried crude oil from Wichita Falls, Texas, to Houston will be activated and reversed in early 1990, in order to provide 90,000 barrels per day of additional capacity from PAD District III to PAD District II.

The unusually high crude oil inputs to midwest refineries, and increased reliance on imported crude oil during the summer of 1989, led to increases in utilization of pipeline capacity from PAD District III to PAD District II. If this pattern continues, other under-utilized pipeline capacity may be reversed and expanded to bring additional imported crude oil to PAD District II from PAD District III.

Figure H1. Interdistrict Crude Oil Pipelines in PAD Districts II and III



Source: National Petroleum Council, *Petroleum Liquid Transportation, Petroleum Storage and Transportation,* Volume V, April 1989, p. C-9.

OPEC Reaches New Production Accord

At the November 28, 1989 meeting of the OPEC oil ministers in Vienna, Austria, the cartel raised its production ceiling for the third time this year, and individual quotas were revised (Table H3). The new agreement will be in effect from January through June 1990.

The production ceiling for the first half of 1990 will be 22.1 million barrels per day, an increase of 8 percent from the current ceiling of 20.5 million barrels per day, which was in effect for the fourth quarter of 1989. The new ceiling is still below actual OPEC output, which is currently about 23.5 million barrels per day.

The highlight of the new agreement is an increase in Kuwait's quota from 5.6 percent to 6.8 percent. The lower share had been a stumbling block to OPEC unity in recent meetings. In accepting the new quota, Kuwait will have to reduce its current output by about 600,000 barrels per day.

In addition, Saudi Arabia agreed to abide by its quota of 24.5 percent of the total OPEC ceiling instead of basing its production on actual OPEC output. The United Arab Emirates (UAE) exempted itself from the quota agreement, indicating that it will ignore its assigned ceiling of 1.1 million barrels per day. The UAE currently produces over 2.0 million barrels per day of crude oil.

The ministers expect continued rising world demand and declines in U.S. and U.S.S.R. production to keep prices stable despite the higher ceiling. Many OPEC ministers also predicted the end of the 7-year-old quota system and of fixed prices sometime in the early 1990's.

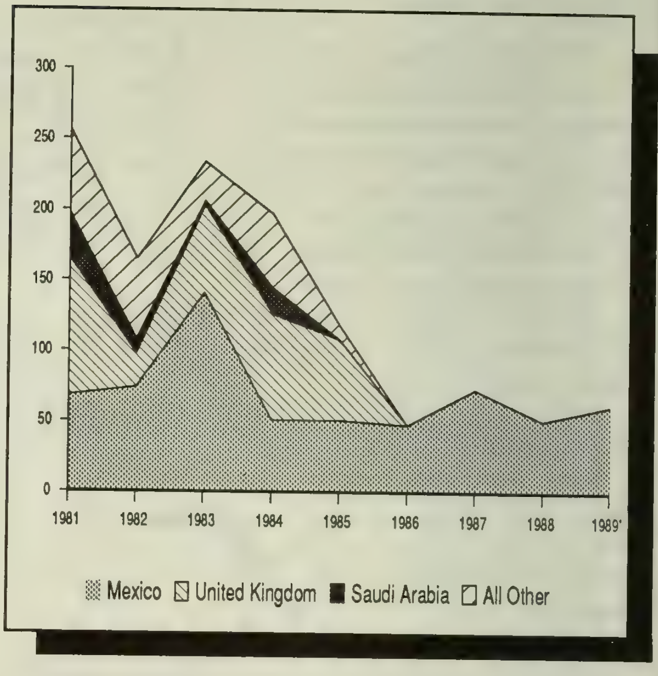
Strategic Petroleum Reserve Crude Oil Mix

The Strategic Petroleum Reserve (SPR) was established under the Energy Policy and Conservation Act, enacted on December 27, 1975. The purpose of the SPR is to provide a cushion in the event of a major petroleum supply disruption in the United States. The SPR could be used to provide crude oil feedstocks to U.S. refiners and to meet U.S. international oil sharing obligations. The 578 million barrels in SPR as of October 31, 1989 could replace about 81 days of current net petroleum imports. The SPR has a targeted capacity of 750 million barrels of crude oil in seven oil storage facilities in Louisiana and Texas, which are grouped into three distribution systems accessing major refining centers and marine facilities. The current SPR drawdown capacity is 3.5 million barrels per day. Crude oil for the SPR has come from U.S. and foreign sources, but Mexico has been the sole source of foreign crude oil since October 1985.

Table H3. OPEC Production Quotas
(Thousand Barrels per Day)

OPEC Countries	January-June 1990 Quota	January-June 1990 %	October-December 1989 Quota	October-December 1989 %
Arab OPEC				
Algeria	827	3.7	771	3.8
Iraq	3,140	14.2	2,926	14.3
Kuwait	1,500	6.8	1,149	5.6
Libya	1,233	5.6	1,149	5.6
Qatar	371	1.7	346	1.7
Saudi Arabia	5,380	24.5	5,014	24.5
U.A.E.	1,095	4.9	1,095	5.3
Total Arab OPEC	13,546	61.4	12,450	60.8
Other OPEC				
Ecuador	273	1.2	254	1.2
Gabon	197	0.9	184	0.9
Indonesia	1,374	6.2	1,374	6.7
Iran	3,140	14.2	2,926	14.3
Nigeria	1,611	7.3	1,501	7.3
Venezuela	1,945	8.8	1,812	8.8
Total Other OPEC	8,540	38.6	8,051	39.2
Total OPEC	22,086	100.0	20,501	100.0

Figure H2. Strategic Petroleum Reserve Imports, by Source
(Thousand Barrels per Day)



* 1989 is for 10 months.
Source: Form EIA-814 and predecessor surveys.

Cost and security of supply made Mexico's Pemex the best foreign source of SPR oil in recent years (Figure H2). However, most of the Mexican crude oil is high-sulfur, or sour (greater than 0.5 percent sulfur content). A ratio of 63 percent sour crude oil and 37 percent sweet crude oil (0.5 percent or less sulfur content) is the targeted mix for the SPR. In order to achieve this mix, additional quantities of low-sulfur crude oil are now planned for purchase for the reserve.

The oil acquisition agent for the SPR, the Defense Fuel Supply Center, will be entering the competitive market early in 1990 to secure near-term fill requirements. Long-term consideration is being given to alternative methods of financing SPR fill by way of leasing oil from oil exporting nations such as Norway, Saudi Arabia and Kuwait.

Foreign Ownership Grows in the U.S. Refining Industry

Foreign-affiliated companies have long been active in the U.S. refining and marketing sector and some, such as Shell Oil Company and BP America, have played major roles in shaping the industry. The recent spate of refinery acquisitions and joint ventures, however, has substantially expanded the role of foreign-affiliated companies in U.S. refining. At the beginning of 1983, foreign-affiliated companies owned interests in 14 percent of total U.S. operating capacity. By the beginning of 1989, foreign affiliation had risen to 27 percent of the U.S. total, and further acquisitions in 1989 will push this figure higher still by 1990. Much of this growth in direct and indirect foreign investment in U.S. refineries has occurred in the past 2 years, with 1988 a particularly active year for foreign acquisitions.

A relatively new phenomenon has been the penetration of the U.S. refining and marketing sector by major oil producing countries of OPEC. As recent as the beginning of 1986, no OPEC countries owned interests in U.S. refining (Figure H3). By the beginning of 1989, however, acquisitions by the state-run oil company of Venezuela, Petroleos de Venezuela (PdVSA), and Saudi Arabia (Saudi Refining Inc.), affected 5 U.S. refineries with a combined crude oil distillation capacity of 1.1 million barrels per day, or 7 percent of total U.S. capacity (Figure H4). The latest OPEC transactions occurred in October 1989 when the Nigerian National Petroleum Corporation announced its intention to purchase a 49-percent interest in Farmland Inc.'s Coffeyville, Kansas, refinery, which had a crude oil distillation capacity of 57,000 barrels per day as of January 1, 1989. Also in October, PdVSA entered into a joint venture with Unocal Corporation involving 147,000 barrels per day of refining capacity at Unocal's Lemont, Illinois, facility. PdVSA also plans to purchase the remaining interest in the Lake Charles, Louisiana refinery it now owns jointly with Citgo Petroleum Corporation. The Lake Charles refinery had a crude oil distillation capacity of 305,000 barrels per day as of January 1, 1989.

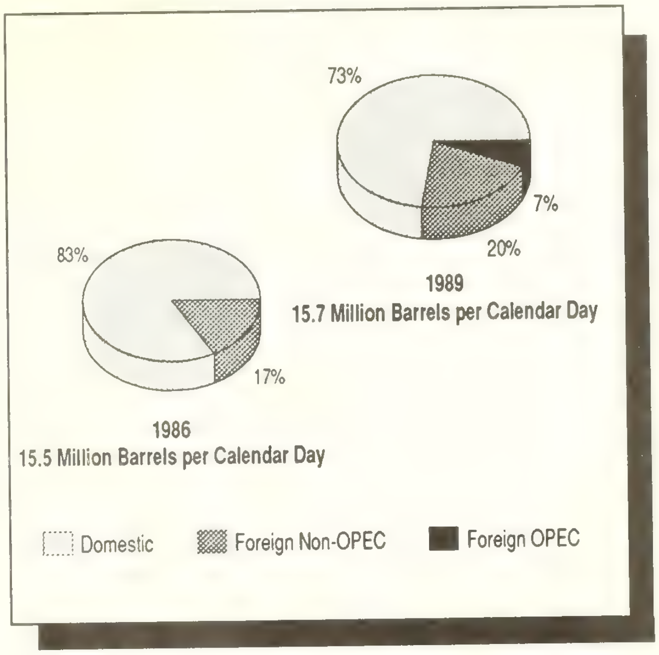
In addition to purchases by OPEC in 1988, the China National Chemicals Import and Export Corporation (Sinochem) entered into a joint venture with Coastal Corporation, acquiring an interest in 55,000 barrels per day of West Coast distillation capacity.

The move toward reintegration of oil interests reflects the increased willingness of oil producing countries to take advantage of opportunities to acquire refining and marketing assets. At the same time, foreign acquisitions have increased the financial stability of the U.S. refining industry.

A number of factors, in addition to availability, have combined to make U.S. refining assets more attractive to overseas buyers. By acquiring U.S. refining assets, producing countries can avoid the expense and delays associated with constructing, expanding, or upgrading export refineries. The acquiring interest also benefits by gaining refinery operations that are near to consuming regions, and by having assured access to stable product markets. In addition, most of the recent joint ventures include supply arrangements that provide secure crude oil outlets for the acquiring interests, thus reducing their need to rely on open market purchases of crude oil.

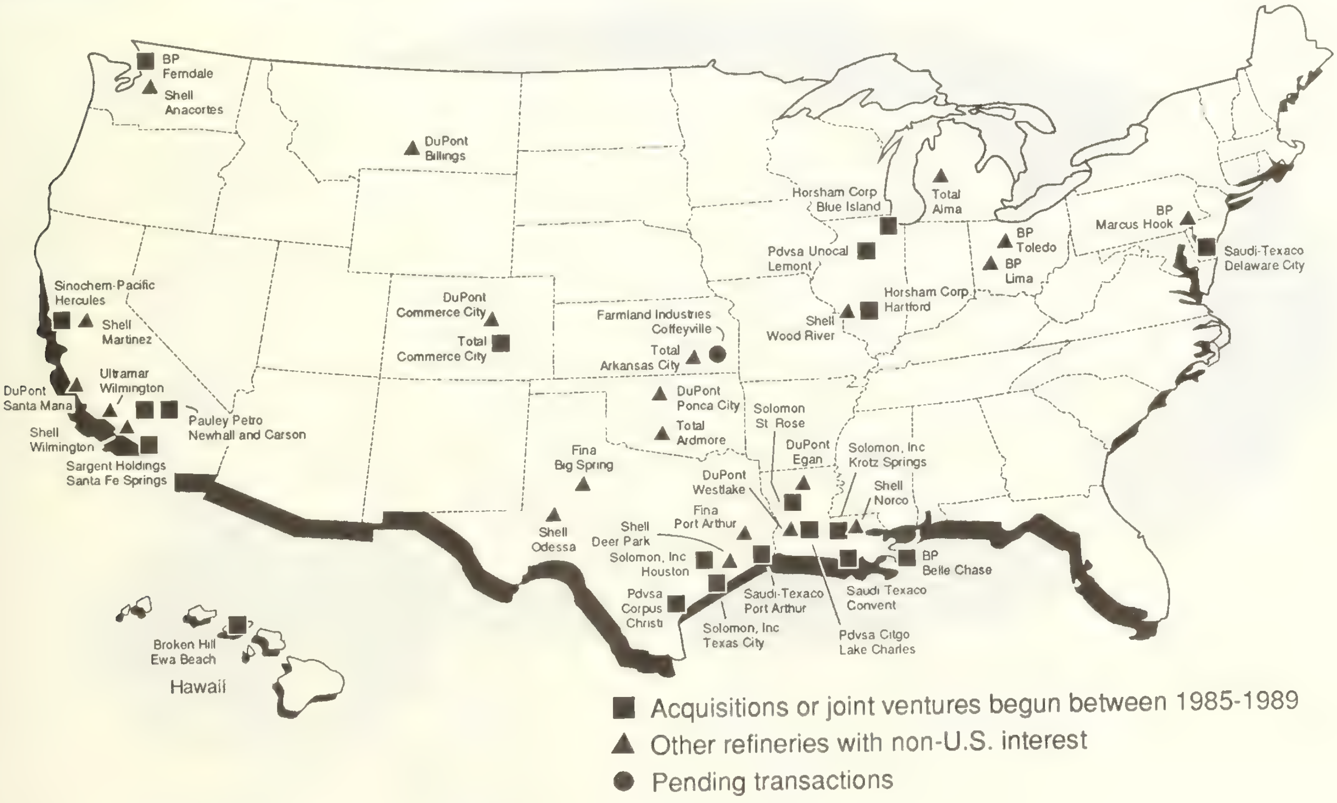
Whether this trend continues will depend primarily on the future availability and price of U.S. refining assets. Increased refinery profitability in 1988 and 1989, which has increased the value of refineries, may dampen foreign enthusiasm for U.S. refining assets. Moreover, national security concerns, particularly a 1988 law that permits prohibition of foreign investment in vital U.S. industries, may slow foreign acquisitions of domestic refining capacity.

Figure H3. U.S. Refinery Capacity And Foreign Affiliation As of January 1: 1986 and 1989



Sources: *Petroleum Supply Annual*, Volume 1, 1988, Tables FE1 and 40; *Profiles of Foreign Direct Investment in U.S. Energy*, 1988, Table 10.

Figure H4. U.S. Refineries With Foreign Affliation



Source: *Petroleum Supply Annual* , Volume I, 1988, 1987, and 1986, Table 40; 1985, Table 41.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	**10,975**	**9,208**	**1,738**	**-11**	**146**	**17,308**	**1,008**
1974 Average	**10,498**	**8,774**	**1,688**	**62**	**117**	**16,653**	h **1,074**
1975 Average	**10,045**	**8,375**	**1,633**	h **17**	h **15**	**16,322**	**1,133**
1976 Average	**9,774**	**8,132**	**1,603**	**39**	**-96**	**17,461**	**1,112**
1977 Average	**9,913**	**8,245**	**1,618**	**170**	**378**	**18,431**	**1,312**
1978 Average	**10,328**	**8,707**	**1,567**	**78**	**-172**	**18,847**	**1,278**
1979 Average	**10,179**	**8,552**	**1,584**	**148**	**25**	**18,513**	**1,341**
1980 Average	**10,214**	**8,597**	**1,573**	**98**	**42**	**17,056**	h **1,392**
1981 Average	**10,230**	**8,572**	**1,609**	h **290**	h **-130**	**16,058**	**1,484**
1982 Average	**10,252**	**8,649**	**1,550**	**136**	**-283**	**15,296**	h **1,430**
1983 Average	**10,299**	**8,688**	**1,559**	h **214**	h **-234**	**15,231**	**1,454**
1984 Average	**10,554**	**8,879**	**1,630**	**199**	**81**	**15,726**	**1,556**
1985 Average	**10,636**	**8,971**	**1,609**	**50**	**-153**	**15,726**	**1,519**
1986 Average	**10,289**	**8,680**	**1,551**	**78**	**124**	**16,281**	**1,593**
1987 January	10,139	8,480	1,582	166	-376	16,684	1,586
February	10,073	8,389	1,618	22	-831	16,908	1,563
March	10,131	8,464	1,598	125	-340	16,165	1,557
April	10,139	8,498	1,590	-50	-532	16,524	1,539
May	9,977	8,336	1,585	-36	116	16,026	1,542
June	9,906	8,279	1,578	165	42	16,830	1,548
July	9,895	8,251	1,582	-33	372	17,113	1,558
August	9,843	8,210	1,571	345	737	16,346	1,592
September	9,851	8,205	1,582	220	236	16,670	1,606
October	10,037	8,364	1,602	661	-523	16,941	1,610
November	10,112	8,397	1,637	355	478	16,343	1,635
December	10,001	8,318	1,621	-405	-482	17,445	1,607
Average	**10,008**	**8,349**	**1,595**	**128**	**-87**	**16,665**	--
1988 January	9,876	8,250	1,579	-43	-294	17,403	1,597
February	10,018	8,374	1,605	133	-868	17,760	1,576
March	10,071	8,374	1,636	219	-748	17,612	1,559
April	9,946	8,288	1,618	190	445	16,561	1,578
May	9,899	8,229	1,627	96	1,048	16,197	1,614
June	9,833	8,170	1,616	43	-109	17,059	1,612
July	9,713	8,040	1,618	-261	819	16,695	1,629
August	9,762	8,079	1,616	-488	307	17,482	1,624
September	9,575	7,895	1,621	-83	245	17,072	1,628
October	9,737	8,023	1,661	399	-333	17,580	1,630
November	9,751	8,023	1,666	3	25	17,620	1,631
December	9,641	7,942	1,634	-188	-911	18,365	1,597
Average	**9,818**	**8,140**	**1,625**	**1**	**-29**	**17,283**	--
1989 January	E 9,638	E 7,913	1,653	130	512	17,211	1,620
February	E 9,469	E 7,830	1,601	63	-704	17,765	1,602
March	E 9,310	E 7,610	1,647	-131	-905	17,907	1,569
April	E 9,462	E 7,747	1,670	496	386	16,561	1,596
May	E 9,480	E 7,807	1,623	266	589	16,488	1,622
June	E 9,213	E 7,660	1,506	-430	-60	17,389	1,608
July	E 9,105	E 7,474	1,552	118	1,178	16,410	1,648
August	E 9,150	E 7,589	1,504	316	-108	17,305	1,654
September	E 9,105	E 7,563	1,478	-135	643	16,635	1,670
October*	RE 8,993	RE 7,462	R 1,477	R 73	R -272	R 17,112	R 1,663
November**	PE 9,153	PE 7,601	E 1,492	E *434*	E *67*	E *16,650*	E *1,683*
11-Mo. Average	PE **9,279**	PE **7,658**	E **1,564**	E **110**	E **126**	E **17,036**	--
1988 11-Mo. Average	**9,834**	**8,158**	**1,624**	**18**	**53**	**17,183**	--
1987 11-Mo. Average	**10,009**	**8,352**	**1,593**	**178**	**-51**	**16,593**	--

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations.
See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			Net Imports[g]
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 Average	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 Average	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 Average	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 Average	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 Average	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	**631**	**5,439**
1987 January	6,353	4,385	1,968	703	84	619	5,650
February	5,984	3,866	2,118	977	284	694	5,007
March	5,794	3,779	2,015	720	150	570	5,074
April	5,911	4,132	1,779	870	247	624	5,041
May	6,073	4,340	1,732	666	69	597	5,407
June	6,769	4,807	1,962	669	116	554	6,099
July	7,588	5,295	2,293	680	149	531	6,908
August	7,454	5,510	1,944	664	141	523	6,790
September	7,178	5,110	2,068	795	116	680	6,382
October	7,068	5,142	1,926	646	84	562	6,422
November	7,068	5,013	2,055	737	164	573	6,331
December	6,833	4,640	2,194	1,057	220	838	5,776
Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 January	7,181	4,662	2,519	885	206	679	6,296
February	7,256	4,650	2,605	864	146	718	6,392
March	6,944	4,868	2,076	834	213	622	6,110
April	7,270	5,167	2,103	676	114	562	6,594
May	7,469	5,339	2,130	814	138	676	6,655
June	7,239	5,322	1,917	938	138	800	6,301
July	7,297	5,100	2,197	826	186	640	6,471
August	7,386	5,089	2,296	814	152	661	6,572
September	7,506	5,212	2,294	673	119	554	6,833
October	7,830	5,551	2,279	732	166	566	7,098
November	7,714	5,070	2,644	717	148	569	6,997
December	7,727	5,230	2,497	1,008	129	879	6,719
Average	**7,402**	**5,107**	**2,295**	**815**	**155**	**661**	**6,587**
1989 January	8,040	5,521	2,519	760	136	624	7,280
February	7,909	5,263	2,646	875	208	666	7,034
March	7,392	4,993	2,400	860	156	704	6,532
April	8,034	5,745	2,289	810	139	670	7,224
May	7,697	5,665	2,032	792	131	661	6,905
June	7,869	5,915	1,954	975	243	732	6,895
July	8,324	6,200	2,123	780	69	711	7,544
August	8,481	6,521	1,960	967	162	805	7,514
September	7,947	6,031	1,916	655	32	623	7,292
October*	R 8,241	R 6,178	R 2,063	R 791	R 61	R 730	R 7,450
November**	E *8,050*	E *6,153*	E *1,897*	E 821	E 101	E 720	E 7,228
11-Mo. Average	E **8,000**	E **5,839**	E **2,161**	E **826**	E **130**	E **695**	E **7,174**
1988 11-Mo. Average	**7,372**	**5,095**	**2,277**	**798**	**157**	**640**	**6,574**
1987 11-Mo. Average	**6,663**	**4,677**	**1,986**	**736**	**144**	**592**	**5,927**

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

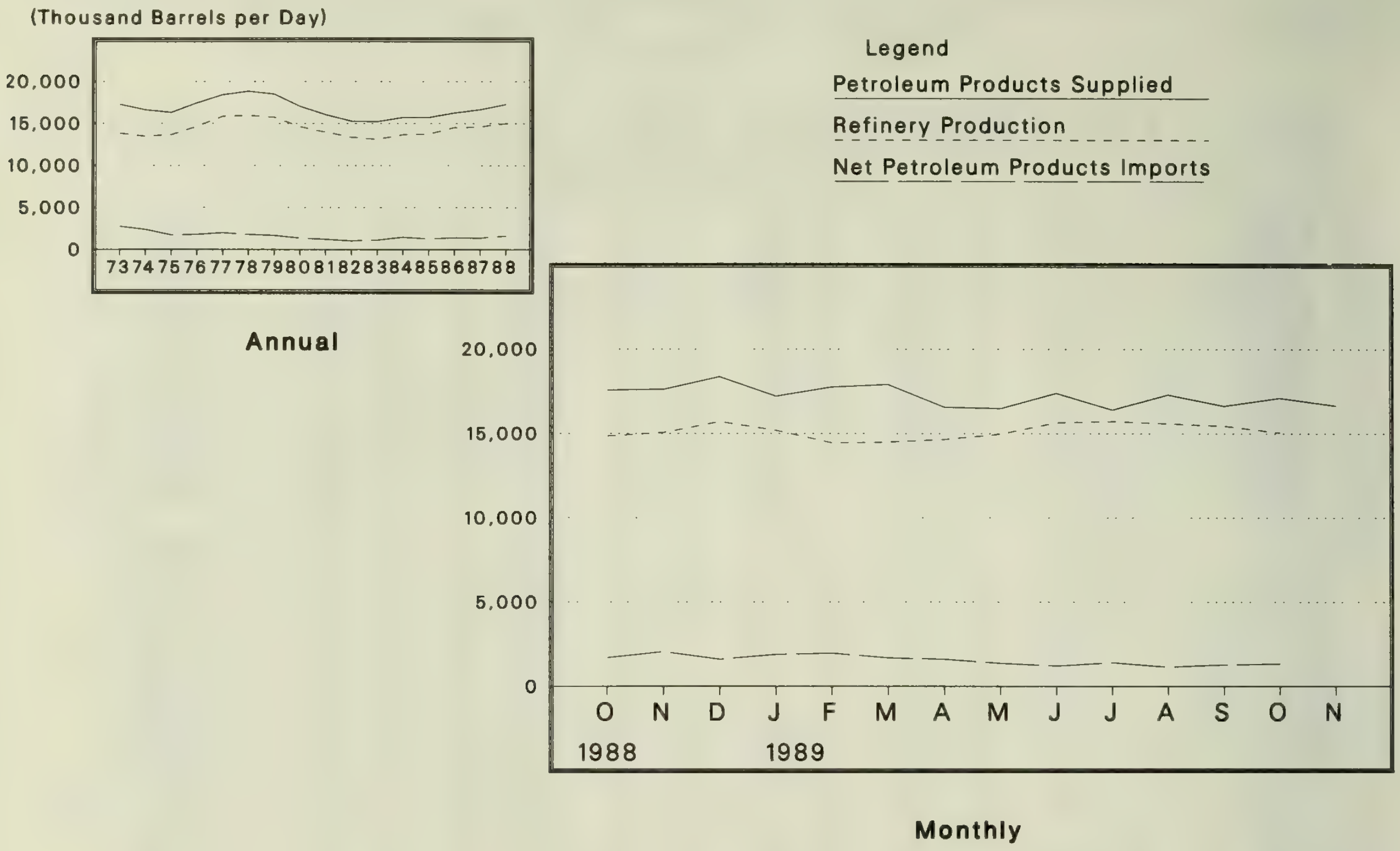
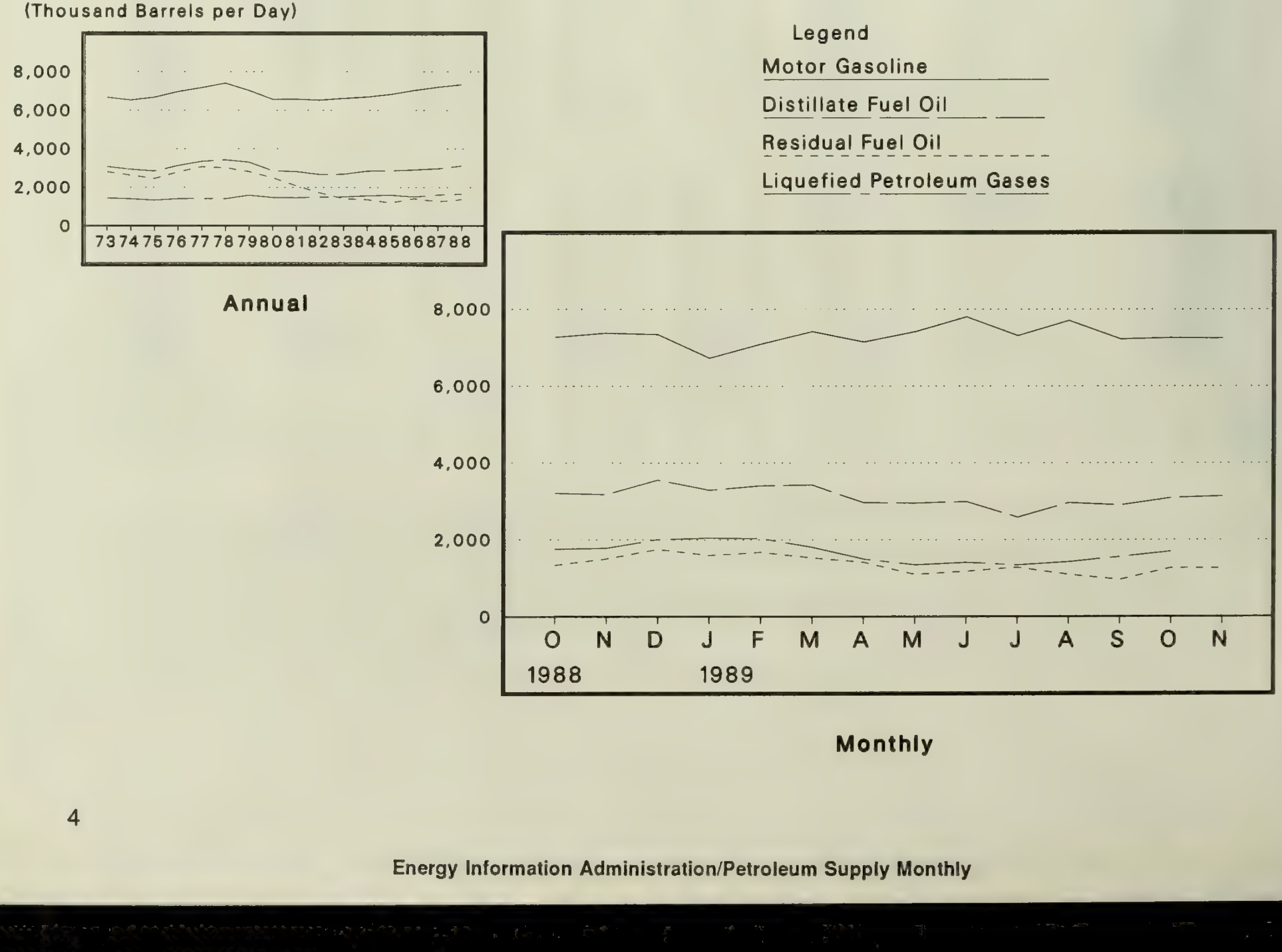
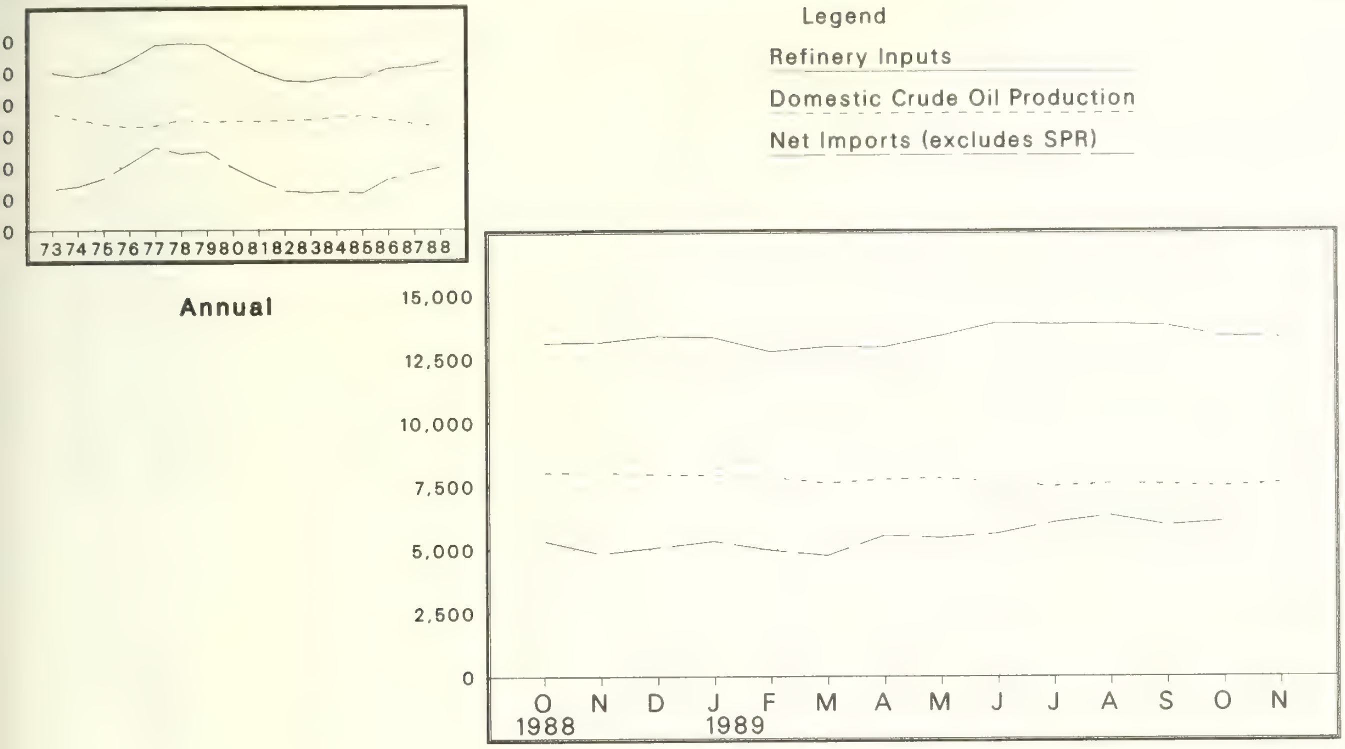


Figure S2. Petroleum Products Supplied



ure S3. Crude Oil Supply and Disposition

ousand Barrels per Day)

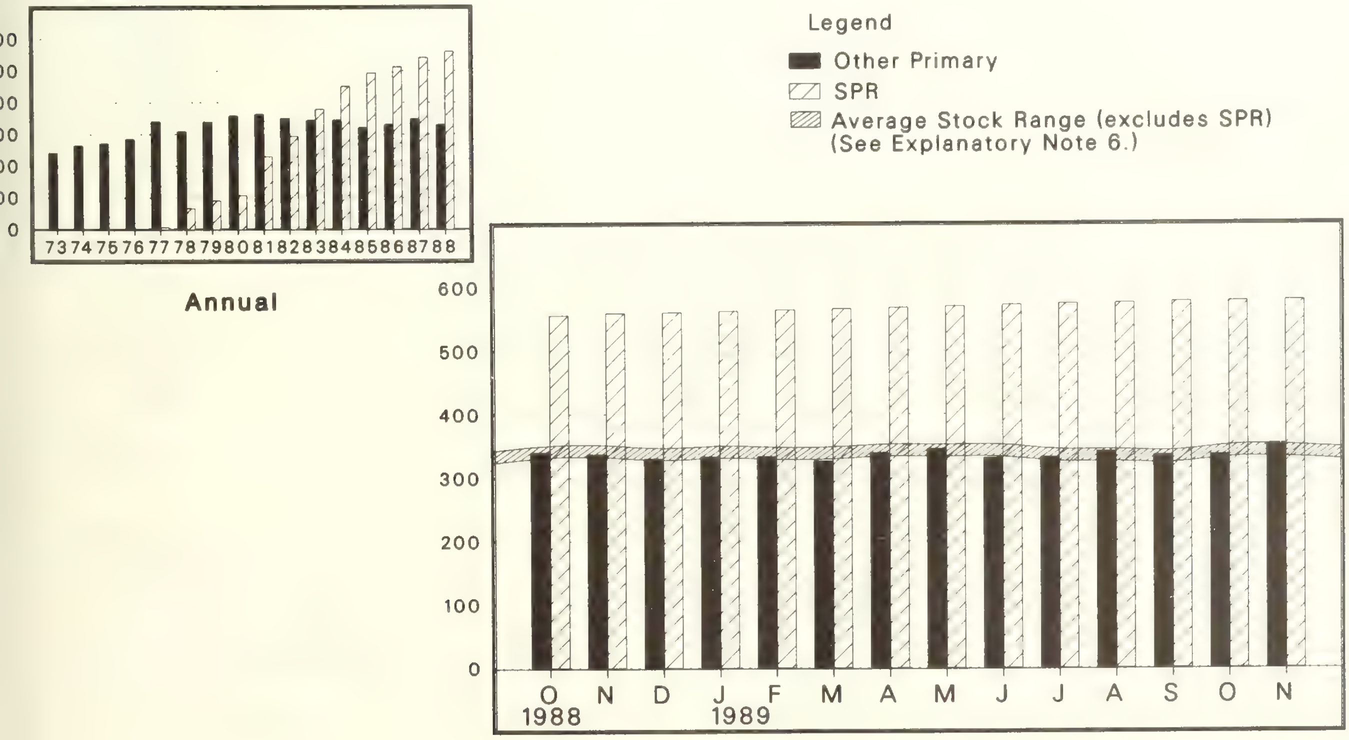


Annual

Monthly

ure S4. Crude Oil Ending Stocks

illion Barrels)



Annual

Monthly

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports					
		Total Domestic	Alaskan	Total	SPR[d]	Other	Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Thousand Barrels per Day							
1973	**Average**	**9,208**	**198**	**3,244**	**--**	**3,244**	**3**	**-19**	**13**
1974	**Average**	**8,774**	**193**	**3,477**	**--**	**3,477**	**-25**	**-15**	**13**
1975	**Average**	**8,375**	**191**	**4,105**	**--**	**4,105**	**17**	**-17**	**13**
1976	**Average**	**8,132**	**173**	**5,287**	**--**	**5,287**	**77**	**-18**	**15**
1977	**Average**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-6**	**-14**	**16**
1978	**Average**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-57**	**-14**	**16**
1979	**Average**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-11**	**-13**	**16**
1980	**Average**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**34**	**-13**	**15**
1981	**Average**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**83**	**-58**	**5**
1982	**Average**	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**71**	**-59**	**3**
1983	**Average**	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**114**	**--**	**2**
1984	**Average**	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**185**	**--**	**2**
1985	**Average**	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**145**	**--**	**1**
1986	**Average**	**8,680**	**1,867**	**4,178**	**48**	**4,130**	**139**	**--**	**(s)**
1987	January	8,480	2,019	4,385	92	4,293	-5	--	1
	February	8,389	1,853	3,866	44	3,822	382	--	(s)
	March	8,464	1,968	3,779	95	3,684	151	--	1
	April	8,498	1,990	4,132	57	4,076	120	--	(s)
	May	8,336	1,979	4,340	92	4,248	51	--	(s)
	June	8,279	1,930	4,807	64	4,743	434	--	(s)
	July	8,251	1,910	5,295	76	5,218	32	--	(s)
	August	8,210	1,908	5,510	63	5,447	177	--	(s)
	September	8,205	1,874	5,110	64	5,047	217	--	(s)
	October	8,364	1,986	5,142	57	5,085	-3	--	(s)
	November	8,397	2,068	5,013	97	4,916	115	--	(s)
	December	8,318	2,043	4,640	68	4,572	101	--	(s)
	Average	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**--**	**(s)**
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**--**	**(s)**
1989	January	E 7,913	E 1,958	5,521	65	5,456	209	--	(s)
	February	E 7,830	E 1,962	5,263	84	5,178	1	--	(s)
	March	E 7,610	E 1,686	4,993	75	4,917	431	--	(s)
	April	E 7,747	E 1,890	5,745	59	5,685	120	--	(s)
	May	E 7,807	E 1,973	5,665	77	5,588	338	--	(s)
	June	E 7,660	E 1,861	5,915	55	5,860	156	--	(s)
	July	E 7,474	E 1,725	6,200	75	6,125	375	--	(s)
	August	E 7,589	E 1,867	6,521	32	6,489	242	--	(s)
	September	E 7,563	E 1,875	6,031	59	5,973	105	--	1
	October*	RE 7,462	RE 1,877	R 6,178	R 37	R 6,141	R -127	--	(s)
	November**	PE 7,601	PE 1,921	E *6,153*	E *45*	E *6,108*	E *115*	--	E (s)
	11-Mo. Average	PE **7,658**	PE **1,871**	E **5,839**	E **60**	E **5,778**	E **181**	**--**	E **(s)**
1988	**11-Mo. Average**	**8,158**	**2,019**	**5,095**	**53**	**5,042**	**196**	**--**	**(s)**
1987	**11-Mo. Average**	**8,352**	**1,954**	**4,677**	**73**	**4,604**	**149**	**--**	**(s)**

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[a] Includes lease condensate.
[b] Stocks are totals as of end of period.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Strategic Petroleum Reserve.
[e] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.
[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels. See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]		Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		SPR[d]	Other						
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	--	-11	12,431	2	--	242	--	242
1974	**Average**	--	62	12,133	3	--	265	--	265
1975	**Average**	--	17	12,442	6	--	271	--	271
1976	**Average**	--	39	13,416	8	--	285	--	285
1977	**Average**	20	150	14,602	50	--	348	7	340
1978	**Average**	163	-84	14,739	158	--	376	67	309
1979	**Average**	67	81	14,648	235	--	430	91	339
1980	**Average**	45	52	13,481	287	--	[g] 466	108	[g] 358
1981	**Average**	336	[g] -46	12,470	228	--	594	230	363
1982	**Average**	174	-38	11,774	236	--	[g] 644	294	[g] 350
1983	**Average**	234	[g] -20	11,685	164	66	723	379	344
1984	**Average**	195	4	12,044	181	64	796	451	345
1985	**Average**	117	-67	12,002	204	60	814	493	321
1986	**Average**	50	28	12,716	154	49	843	512	331
1987	January	108	58	12,570	84	41	848	515	333
	February	64	-42	12,290	284	41	849	517	332
	March	106	19	12,081	150	39	852	520	332
	April	67	-116	12,512	247	41	851	522	329
	May	101	-137	12,653	69	42	850	525	325
	June	69	97	13,202	116	36	855	527	328
	July	91	-124	13,430	149	32	854	530	324
	August	63	281	13,380	141	31	864	532	332
	September	64	157	13,168	116	28	871	534	337
	October	57	604	12,733	84	25	892	536	356
	November	97	258	12,981	164	25	902	539	364
	December	68	-472	13,212	220	31	890	541	349
	Average	**80**	**49**	**12,854**	**151**	**34**	--	--	--
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	26	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	**52**	**-51**	**13,246**	**155**	**40**	--	--	--
1989	January	65	66	13,330	136	47	895	562	333
	February	85	-21	12,774	208	48	897	564	333
	March	75	-206	12,963	156	45	893	566	326
	April	60	437	12,953	139	23	907	568	339
	May	77	189	13,395	131	19	916	570	345
	June	44	-474	13,896	243	20	903	572	331
	July	86	32	13,843	69	19	906	574	332
	August	32	284	13,858	162	17	916	575	341
	September	59	-194	13,784	32	18	912	577	335
	October*	R 37	R 36	R 13,358	R 61	R 21	R 914	578	R 336
	November**	E *45*	E *389*	E *13,317*	E 101	E 17	E *932*	E *579*	E *353*
	11-Mo. Average	E **60**	E **50**	E **13,411**	E **130**	E **27**	--	--	--
1988	**11-Mo. Average**	**54**	**-36**	**13,234**	**157**	**40**	--	--	--
1987	**11-Mo. Average**	**81**	**97**	**12,821**	**144**	**35**	--	--	--

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Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	January	156	0	875	15	254	0	346	899	218	2,764	1,184
	February	307	0	776	54	418	30	256	791	155	2,785	1,222
	March	334	0	430	0	317	73	312	702	135	2,305	843
	April	323	0	463	62	236	47	512	710	77	2,430	866
	May	196	0	499	26	297	75	550	913	119	2,675	775
	June	247	0	782	45	261	165	546	808	268	3,122	1,275
	July	347	0	756	42	349	237	792	854	157	3,533	1,264
	August	250	0	961	103	312	208	732	831	351	3,748	1,611
	September	378	0	902	146	242	193	615	821	263	3,560	1,640
	October	274	0	1,051	111	305	86	518	829	401	3,576	1,713
	November	395	0	637	97	219	41	607	771	402	3,169	1,477
	December	339	0	876	31	216	23	613	717	220	3,033	1,415
	Average	**295**	**0**	**751**	**61**	**285**	**98**	**535**	**804**	**231**	**3,060**	**1,274**
1988	January	333	0	849	61	179	[f] 1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	**300**	**0**	**1,064**	**29**	**205**	**(s)**	**618**	**794**	**510**	**3,520**	**1,839**
1989	January	315	0	1,450	59	211	0	746	916	429	4,126	2,200
	February	310	0	1,290	17	292	0	542	767	593	3,812	2,126
	March	272	0	1,108	64	167	0	702	911	454	3,678	1,789
	April	235	0	1,226	14	128	0	750	830	743	3,926	2,030
	May	272	0	1,155	61	264	0	754	853	630	3,990	1,977
	June	205	0	1,240	17	138	0	864	777	841	4,082	2,140
	July	256	0	1,182	0	113	0	1,085	794	992	4,421	2,301
	August	216	0	1,316	44	100	0	922	834	1,052	4,483	2,444
	September	256	0	1,109	20	113	0	897	902	957	4,253	2,195
	October	246	0	1,158	14	167	0	713	997	866	4,160	2,117
	10-Mo. Average	**258**	**0**	**1,223**	**31**	**168**	**0**	**800**	**859**	**756**	**4,096**	**2,132**
1988	**10-Mo. Average**	**297**	**0**	**1,049**	**32**	**202**	**(s)**	**626**	**808**	**490**	**3,505**	**1,807**
1987	**10-Mo. Average**	**281**	**0**	**750**	**60**	**298**	**112**	**520**	**817**	**215**	**3,052**	**1,239**

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	**Average**	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	**Average**	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	**Average**	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	**Average**	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	**Average**	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	**Average**	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	**Average**	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	**Average**	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	**Average**	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	**Average**	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	**Average**	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	**Average**	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	**Average**	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	**Average**	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	January	59	799	689	29	100	384	33	327	1,170	3,589	6,353
	February	56	783	692	23	127	260	24	296	938	3,199	5,984
	March	43	738	721	14	124	322	17	247	1,262	3,489	5,794
	April	43	818	679	12	123	485	24	259	1,037	3,481	5,911
	May	31	884	541	33	117	392	21	214	1,164	3,398	6,073
	June	22	912	664	13	114	377	21	281	1,242	3,646	6,769
	July	46	901	680	71	98	354	17	288	1,598	4,055	7,588
	August	27	841	577	51	100	289	20	274	1,526	3,706	7,454
	September	48	846	705	42	105	259	25	271	1,318	3,618	7,178
	October	26	938	697	16	88	321	17	250	1,138	3,492	7,068
	November	31	827	627	14	111	456	15	235	1,585	3,899	7,068
	December	10	883	591	24	73	324	23	327	1,543	3,800	6,833
	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	594	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	936	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	32	999	747	36	97	315	22	242	1,392	3,882	7,402
1989	January	55	995	807	59	86	207	30	415	1,261	3,914	8,040
	February	24	991	756	44	92	221	24	368	1,577	4,097	7,909
	March	38	951	670	52	82	157	38	324	1,402	3,715	7,392
	April	55	853	1,002	14	114	182	24	405	1,458	4,108	8,034
	May	27	887	792	22	68	210	46	379	1,277	3,707	7,697
	June	28	900	678	23	143	190	32	363	1,431	3,788	7,869
	July	32	831	758	49	89	322	39	331	1,452	3,902	8,324
	August	19	896	801	43	101	367	21	239	1,510	3,997	8,481
	September	8	939	714	35	95	191	33	190	1,489	3,694	7,947
	October	44	839	833	38	71	307	32	180	1,737	4,081	8,241
	10-Mo. Average	33	907	781	38	94	236	32	319	1,458	3,899	7,995
1988	**10-Mo. Average**	32	992	744	32	96	324	22	224	1,366	3,833	7,338
1987	**10-Mo. Average**	40	847	664	31	109	345	22	271	1,243	3,571	6,623

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

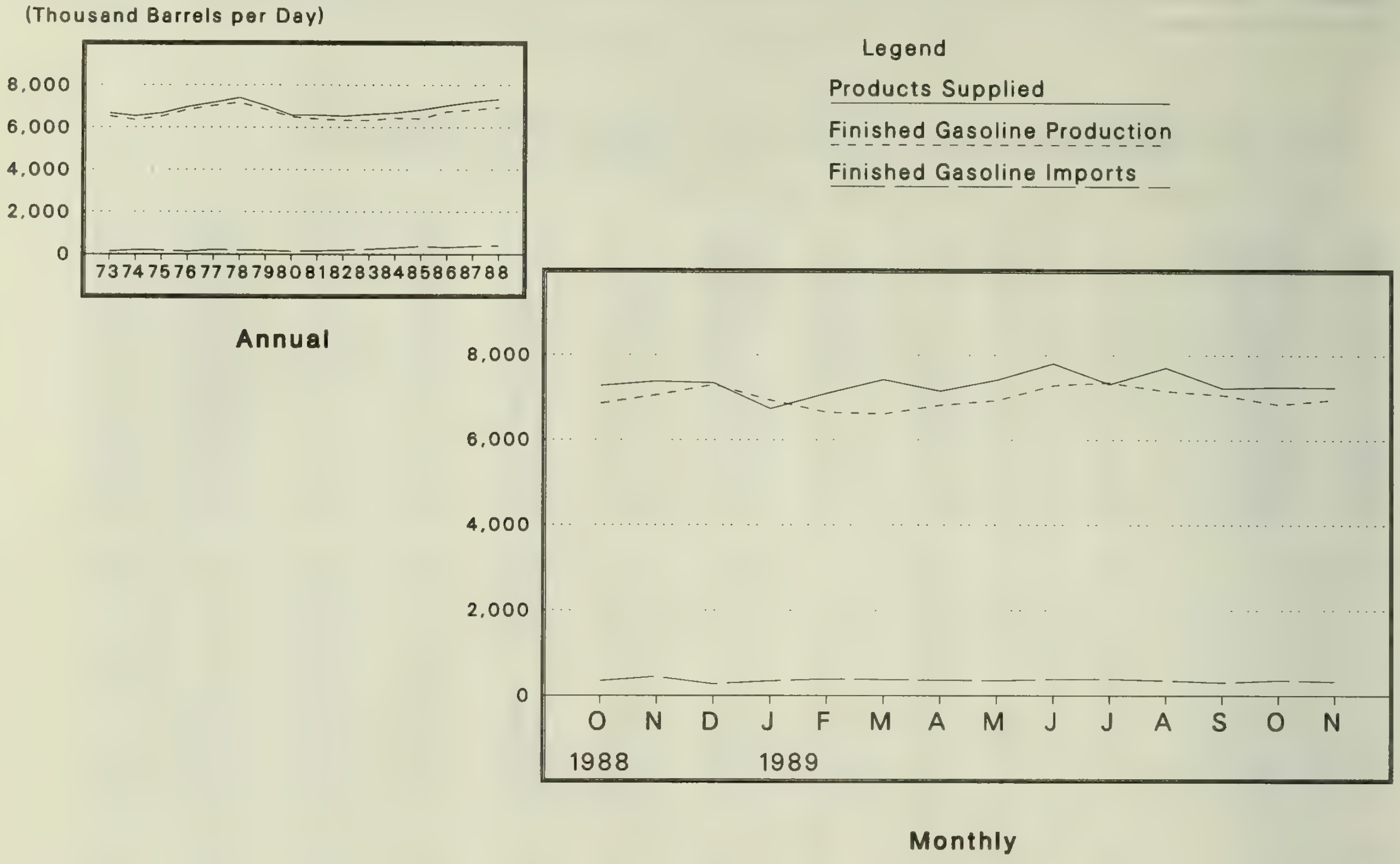
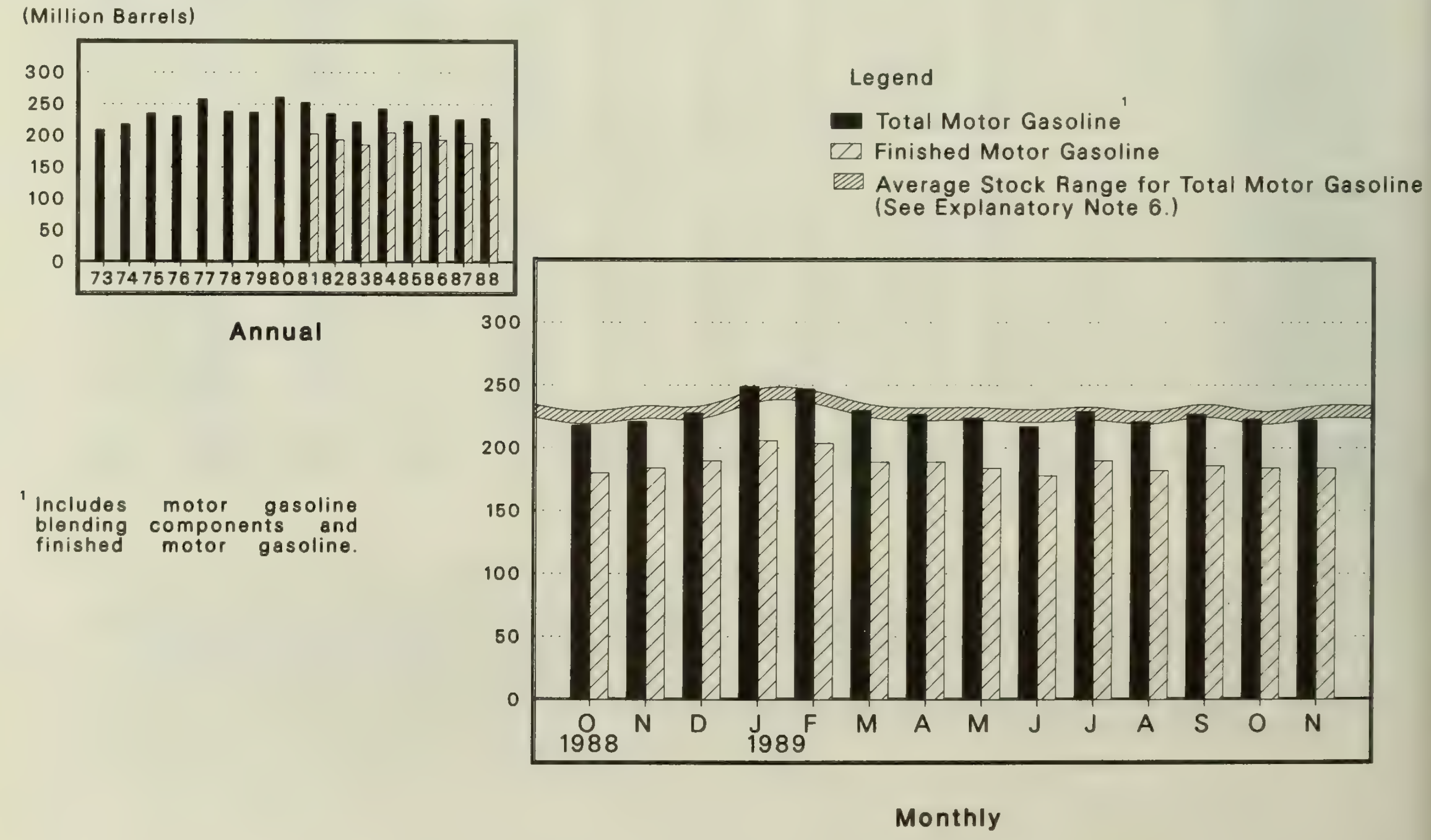


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	**6,535**	**134**	**-9**	**4**	**6,674**	**--**	**--**	**209**	**--**
1974	**Average**	**6,360**	**204**	**24**	**2**	**6,537**	**--**	**--**	**[f]218**	**--**
1975	**Average**	**6,520**	**184**	**[f]28**	**2**	**6,675**	**--**	**--**	**235**	**--**
1976	**Average**	**6,841**	**131**	**-10**	**3**	**6,978**	**--**	**--**	**231**	**--**
1977	**Average**	**7,033**	**217**	**72**	**2**	**7,177**	**1,976**	**27.5**	**258**	**--**
1978	**Average**	**7,169**	**190**	**-54**	**1**	**7,412**	**2,521**	**34.0**	**238**	**--**
1979	**Average**	**6,852**	**181**	**-2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	**--**
1980	**Average**	**6,506**	**140**	**66**	**1**	**6,579**	**3,067**	**46.6**	**[f]261**	**--**
1981	**Average[g]**	**6,405**	**157**	**[f]-28**	**2**	**6,588**	**3,264**	**49.5**	**253**	**--**
1982	**Average**	**6,338**	**197**	**-25**	**20**	**6,539**	**3,409**	**52.1**	**[f]235**	**--**
1983	**Average**	**6,340**	**247**	**[f]-45**	**10**	**6,622**	**3,647**	**55.1**	**222**	**186**
1984	**Average**	**6,453**	**299**	**54**	**6**	**6,693**	**3,987**	**59.6**	**243**	**205**
1985	**Average**	**6,419**	**381**	**-41**	**10**	**6,831**	**4,406**	**64.5**	**223**	**190**
1986	**Average**	**6,752**	**326**	**11**	**33**	**7,034**	**4,854**	**69.0**	**233**	**194**
1987	January	6,714	393	528	44	6,535	4,822	73.8	251	211
	February	6,365	309	-144	22	6,796	5,068	74.6	250	207
	March	6,569	364	-51	20	6,964	5,193	74.6	248	205
	April	6,850	374	-133	42	7,314	5,405	73.9	242	201
	May	6,991	354	-164	48	7,460	5,569	74.7	235	196
	June	7,089	385	-111	46	7,539	5,678	75.3	230	193
	July	7,043	452	-119	33	7,581	5,740	75.7	226	189
	August	6,933	396	-29	19	7,338	5,656	77.1	226	188
	September	6,921	421	107	30	7,205	5,536	76.8	230	191
	October	6,668	356	-302	21	7,305	5,636	77.1	218	182
	November	6,907	484	208	32	7,151	5,589	78.2	225	188
	December	7,015	320	24	59	7,251	5,715	78.8	226	189
	Average	**6,841**	**384**	**-15**	**35**	**7,206**	**5,470**	**75.9**	**--**	**--**
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,983	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,956**	**405**	**3**	**22**	**7,336**	**5,995**	**81.7**	**--**	**--**
1989	January	6,935	349	519	33	6,732	5,753	85.4	249	206
	February	6,648	392	-79	24	7,095	6,119	86.3	247	204
	March	6,615	381	-469	43	7,421	6,381	86.0	230	189
	April	6,820	371	-5	46	7,150	6,238	87.2	227	189
	May	6,931	356	-160	31	7,416	6,486	87.5	224	184
	June	7,289	391	-184	60	7,803	6,886	88.3	217	178
	July	7,355	398	380	57	7,316	6,518	89.1	229	190
	August	7,159	358	-251	58	7,709	6,917	89.7	221	182
	September	7,066	312	121	31	7,225	6,428	89.0	227	186
	October*	R 6,845	R 365	R -76	R 29	R 7,256	R 6,586	R 90.8	R 223	184
	November**	E *6,963*	E *339*	E *8*	E 45	E *7,248*	E *6,695*	E *92.4*	E *222*	E *184*
	11-Mo. Average	E **6,968**	E **365**	E **-17**	E **42**	E **7,308**	E **6,457**	E **88.4**	**--**	**--**
1988	**11-Mo. Average**	**6,924**	**417**	**-15**	**20**	**7,336**	**5,975**	**81.4**	**--**	**--**
1987	**11-Mo. Average**	**6,825**	**390**	**-18**	**33**	**7,201**	**5,447**	**75.6**	**--**	**--**

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[a] Stocks are totals as of end of period.

[b] Beginning in 1981, excludes blending components.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Includes gasohol.

[e] Includes motor gasoline blending components.

[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

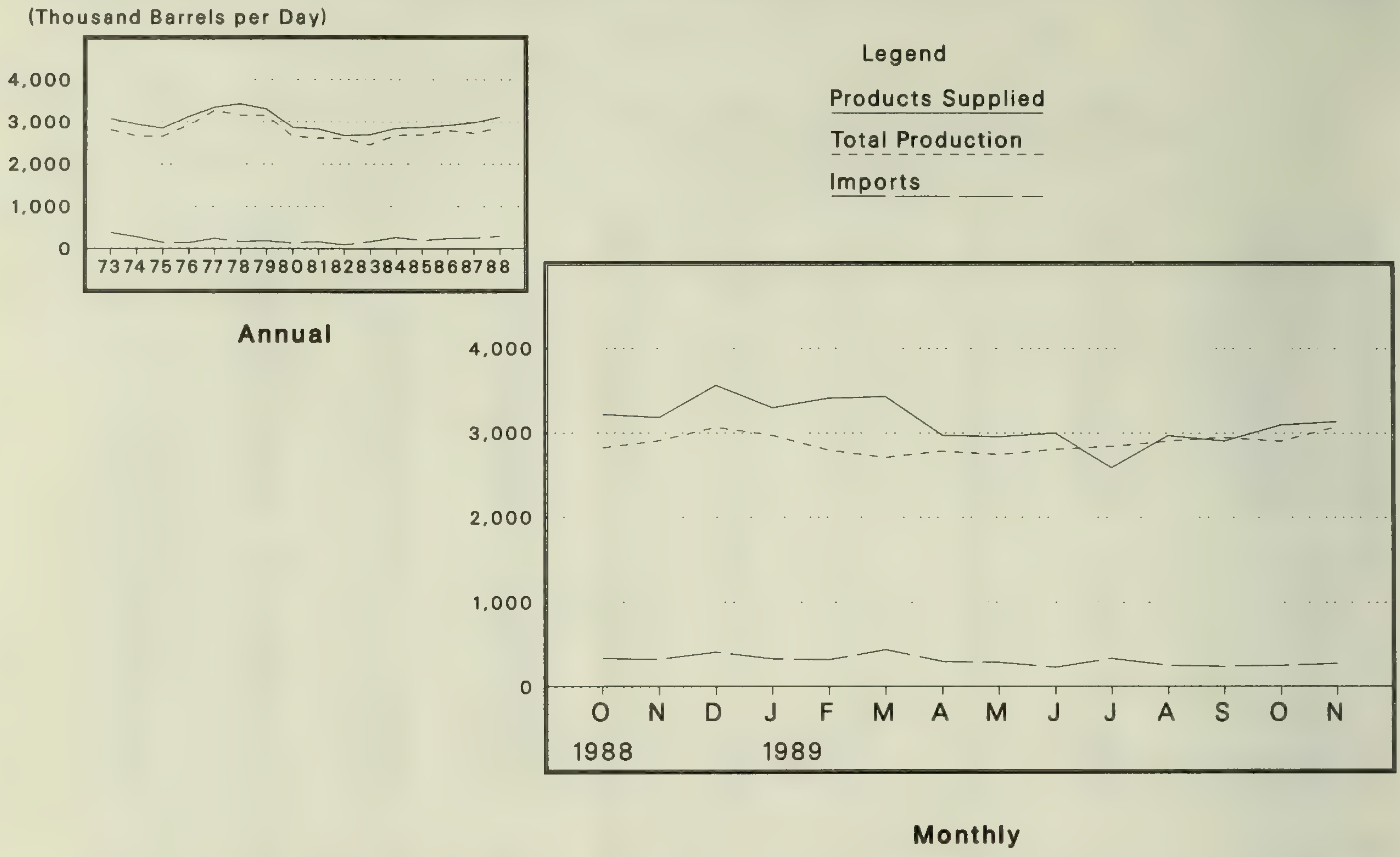

Figure S8. Distillate Fuel Oil Ending Stocks

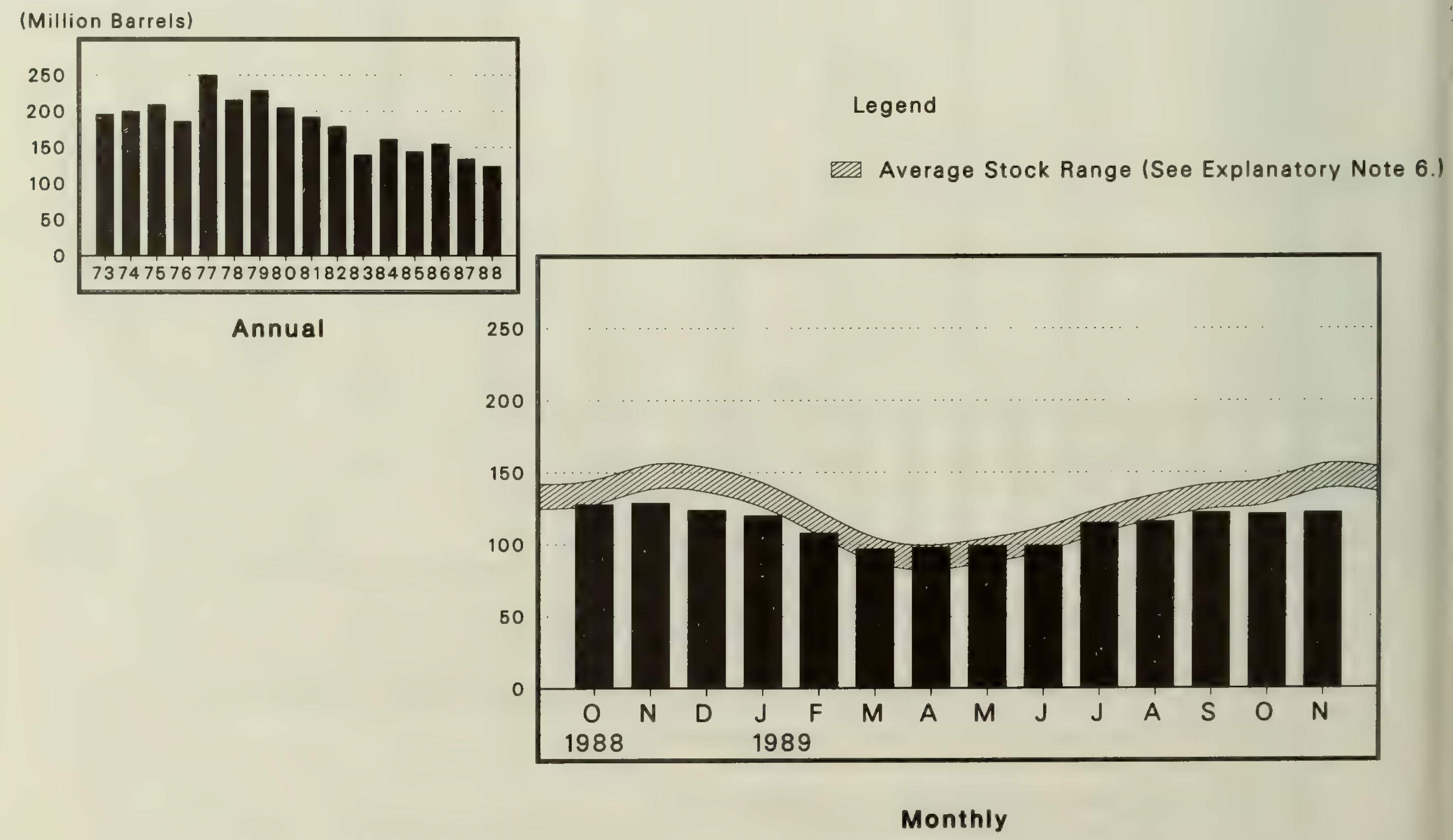

Table S5. Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			
	Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
	Thousand Barrels per Day						Million Barrels
1973 Average	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**
1974 Average	**2,669**	**289**	**2**	**9**	**2**	**2,948**	**[d] 200**
1975 Average	**2,654**	**155**	**2**	**[d] -40**	**1**	**2,851**	**209**
1976 Average	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**
1977 Average	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**
1978 Average	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**
1979 Average	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**
1980 Average	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	**[d] 205**
1981 Average[e]	**2,613**	**173**	**10**	**[d] -38**	**5**	**2,829**	**192**
1982 Average	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	**[d] 179**
1983 Average	**2,456**	**174**	**--**	**[d] -124**	**64**	**2,690**	**140**
1984 Average	**2,681**	**272**	**--**	**57**	**51**	**2,845**	**161**
1985 Average	**2,687**	**200**	**--**	**-48**	**67**	**2,868**	**144**
1986 Average	**2,798**	**247**	**--**	**31**	**100**	**2,914**	**155**
1987 January	2,759	222	--	-444	115	3,310	141
February	2,556	253	--	-629	93	3,345	124
March	2,421	297	--	-464	67	3,116	109
April	2,553	192	--	-300	53	2,991	100
May	2,563	203	--	31	51	2,684	101
June	2,689	265	--	104	61	2,790	104
July	2,700	381	--	329	38	2,713	115
August	2,706	222	--	327	47	2,553	125
September	2,748	222	--	68	64	2,838	127
October	2,780	237	--	-187	53	3,151	121
November	3,035	187	--	234	56	2,932	128
December	3,242	378	--	209	92	3,318	134
Average	**2,731**	**255**	**--**	**-56**	**66**	**2,976**	**--**
1988 January	3,010	424	--	-206	82	3,558	128
February	2,667	383	--	-614	107	3,557	110
March	2,706	247	--	-660	74	3,539	90
April	2,867	210	--	171	42	2,864	95
May	2,936	253	--	320	74	2,795	105
June	2,893	222	--	185	76	2,854	110
July	2,784	222	--	308	58	2,640	120
August	2,848	279	--	185	70	2,873	126
September	2,778	307	--	192	72	2,821	131
October	2,827	336	--	-103	48	3,218	128
November	2,909	327	--	19	34	3,183	129
December	3,068	409	--	-171	87	3,560	124
Average	**2,859**	**302**	**--**	**-30**	**69**	**3,122**	**--**
1989 January	2,973	331	--	-103	110	3,296	120
February	2,798	322	--	-455	164	3,411	108
March	2,714	439	--	-352	76	3,429	97
April	2,788	299	--	58	56	2,973	98
May	2,748	290	--	30	51	2,957	99
June	2,808	233	--	4	39	2,998	99
July	2,846	335	--	502	89	2,592	115
August	2,905	254	--	35	154	2,970	116
September	2,950	243	--	206	81	2,906	122
October*	R 2,906	R 254	--	R -26	R 90	R 3,096	R 121
November**	E *3,075*	E *275*	--	E *93*	E *120*	E *3,137*	E *122*
11-Mo. Average	E **2,865**	E **298**	**--**	E **2**	E **93**	E **3,067**	**--**
1988 11-Mo. Average	**2,839**	**292**	**--**	**-17**	**67**	**3,081**	**--**
1987 11-Mo. Average	**2,683**	**244**	**--**	**-81**	**63**	**2,945**	**--**

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

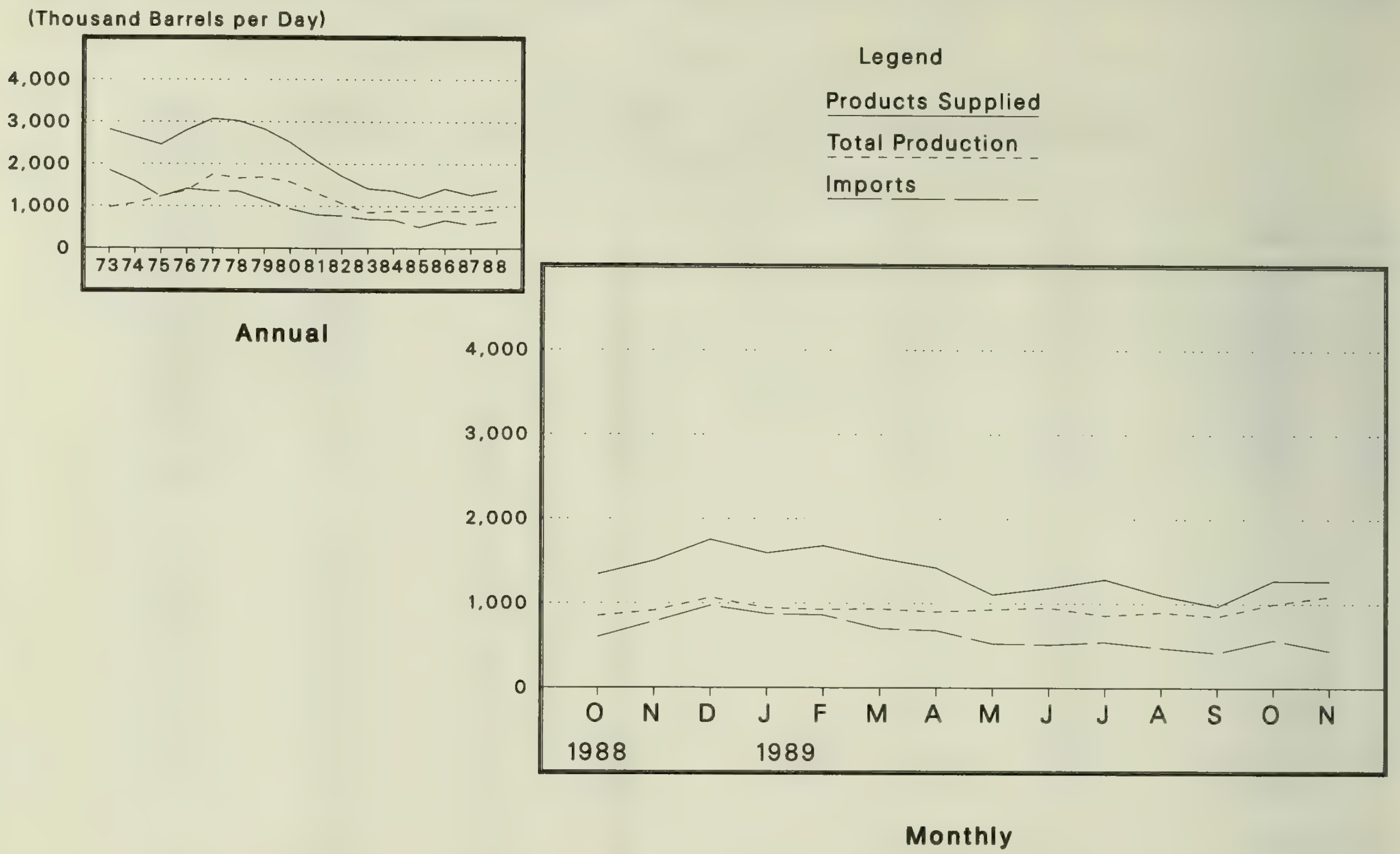

Figure S10. Residual Fuel Oil Ending Stocks

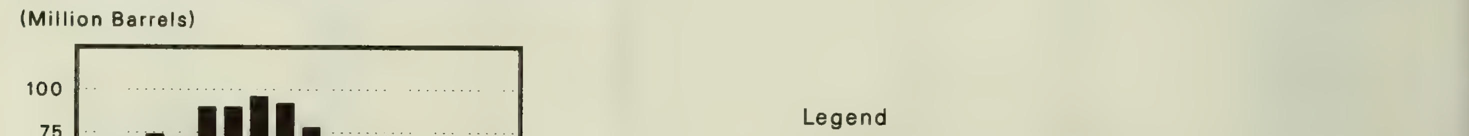

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	971	1,853	17	-5	23	2,822	53
1974	**Average**	1,070	1,587	13	17	14	2,639	d 60
1975	**Average**	1,235	1,223	15	d -2	15	2,462	74
1976	**Average**	1,377	1,413	17	-5	12	2,801	72
1977	**Average**	1,754	1,359	13	48	5	3,071	90
1978	**Average**	1,667	1,355	13	1	13	3,023	90
1979	**Average**	1,687	1,151	12	15	9	2,826	96
1980	**Average**	1,580	939	12	-10	33	2,508	d 92
1981	**Average**[e]	1,321	800	48	d -37	118	2,088	78
1982	**Average**	1,070	776	48	-32	209	1,716	d 66
1983	**Average**	852	699	--	d -55	185	1,421	49
1984	**Average**	891	681	--	12	190	1,369	53
1985	**Average**	882	510	--	-7	197	1,202	50
1986	**Average**	889	669	--	-8	147	1,418	47
1987	January	920	701	--	-81	198	1,504	45
	February	825	668	--	-243	221	1,515	38
	March	863	559	--	38	150	1,234	39
	April	831	476	--	-114	239	1,182	36
	May	813	505	--	145	144	1,029	40
	June	864	481	--	33	105	1,207	41
	July	901	721	--	108	175	1,339	45
	August	882	512	--	32	185	1,176	46
	September	904	526	--	-42	177	1,296	44
	October	887	414	--	39	194	1,069	46
	November	928	568	--	145	146	1,205	50
	December	1,001	650	--	-83	300	1,434	47
	Average	885	565	--	(s)	186	1,264	--
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	926	644	--	-8	200	1,378	--
1989	January	948	877	--	78	151	1,596	47
	February	929	863	--	-35	146	1,681	46
	March	936	703	--	-116	220	1,535	42
	April	903	681	--	-74	236	1,421	40
	May	931	526	--	77	276	1,105	43
	June	951	515	--	73	208	1,184	45
	July	860	546	--	-59	176	1,287	43
	August	899	478	--	50	225	1,102	45
	September	852	421	--	167	137	969	50
	October*	R 1,001	R 575	--	R 59	R 243	R 1,274	R 51
	November**	E *1,093*	E *448*	--	E *87*	E 184	E *1,271*	E *52*
	11-Mo. Average	E 937	E 602	–	E 28	E 201	E 1,309	--
1988	**11-Mo. Average**	912	614	--	-10	193	1,343	--
1987	**11-Mo. Average**	875	557	--	8	175	1,249	--

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

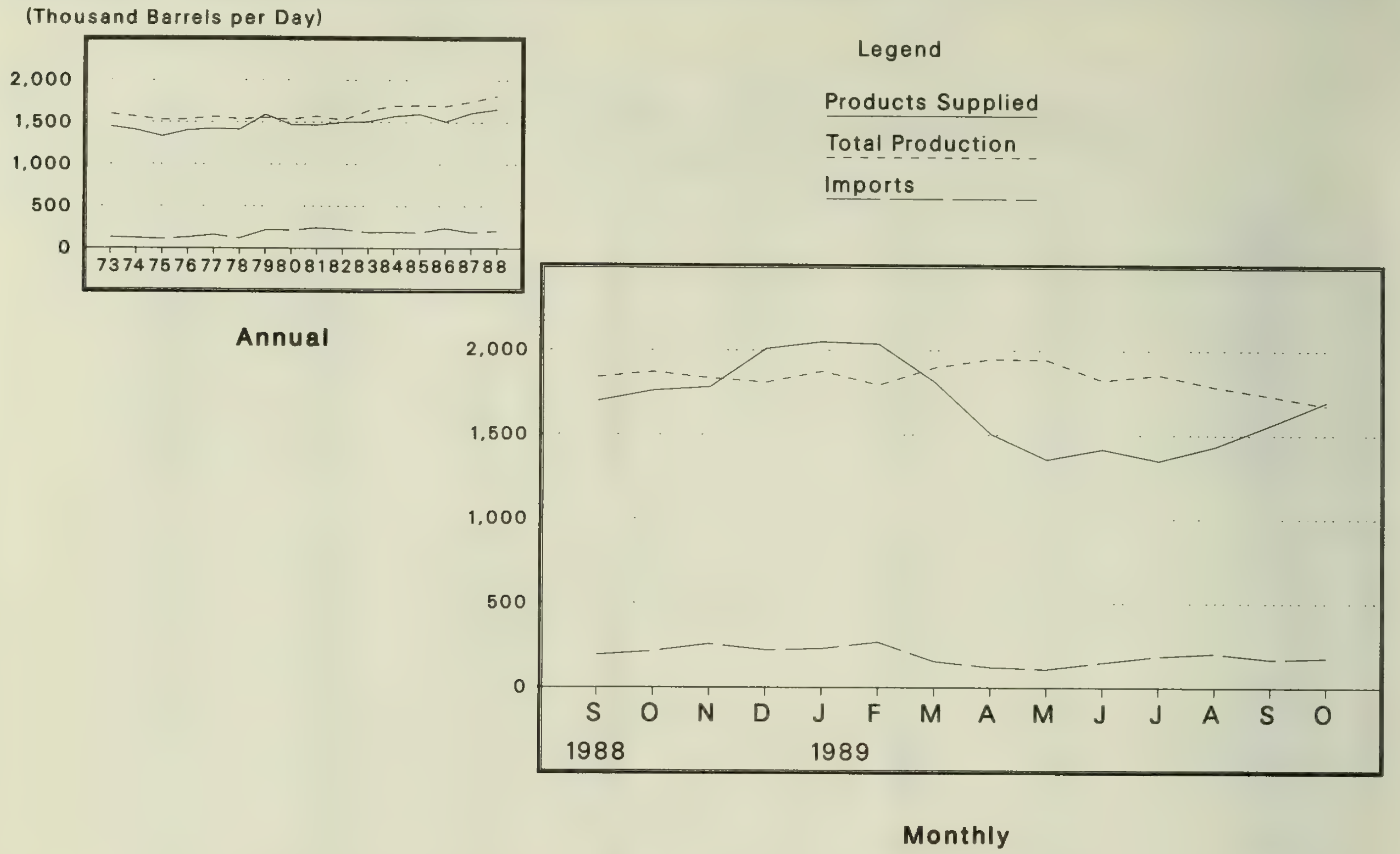

Figure S12. Liquefied Petroleum Gases Ending Stocks

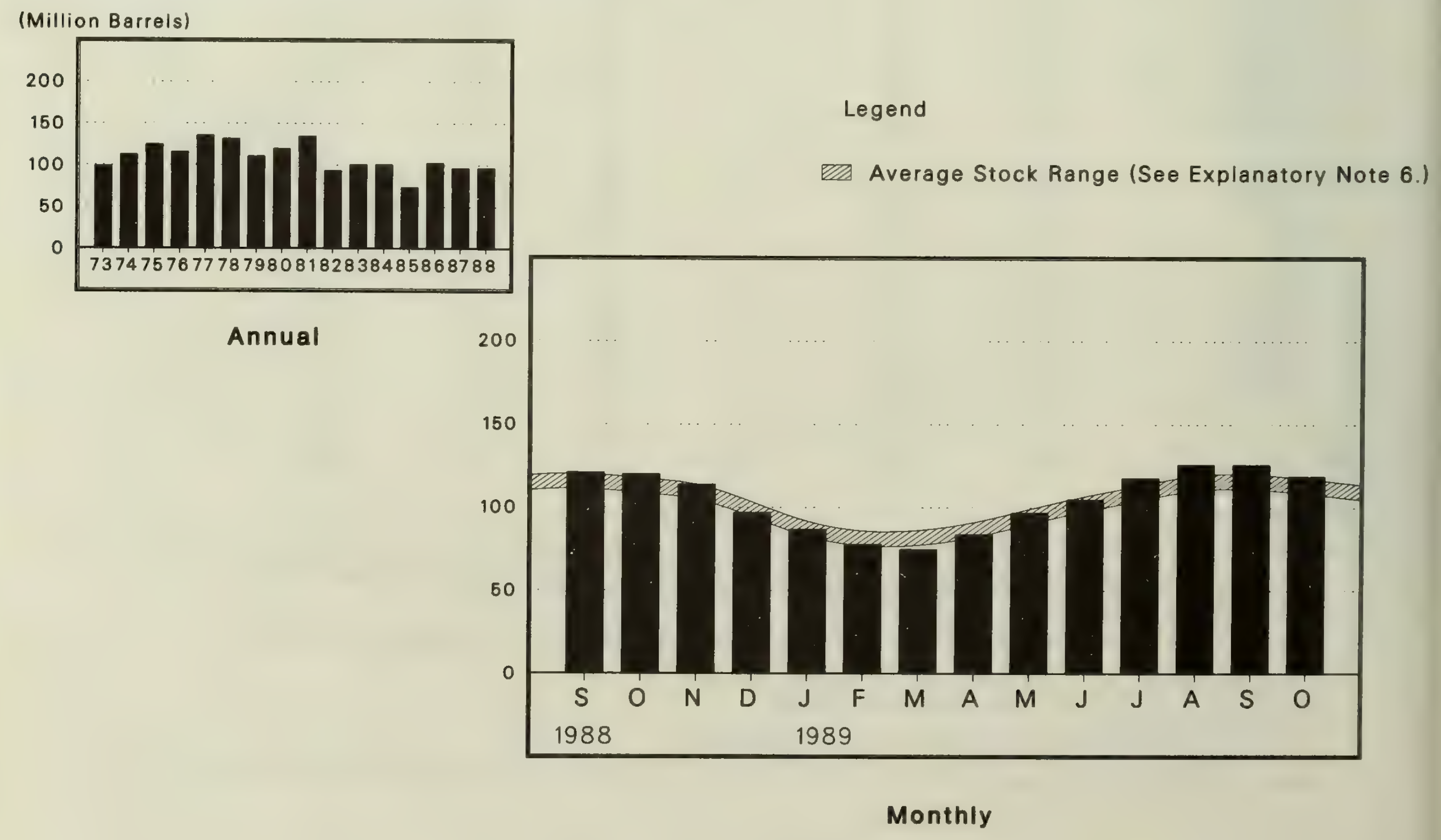

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**1,600**	**132**	**35**	**220**	**27**	**1,449**	99
1974	**Average**	**1,565**	**123**	**38**	**220**	**25**	**1,406**	[d] 113
1975	**Average**	**1,527**	**112**	**[d] 35**	**246**	**26**	**1,333**	125
1976	**Average**	**1,535**	**130**	**-24**	**260**	**25**	**1,404**	116
1977	**Average**	**1,566**	**161**	**55**	**233**	**18**	**1,422**	136
1978	**Average**	**1,537**	**123**	**-12**	**239**	**20**	**1,413**	132
1979	**Average**	**1,556**	**217**	**-70**	**236**	**15**	**1,592**	111
1980	**Average**	**1,535**	**216**	**27**	**233**	**21**	**1,469**	[d] 120
1981	**Average**	**1,571**	**244**	**[d] 18**	**289**	**42**	**1,466**	135
1982	**Average**	**1,528**	**226**	**-111**	**300**	**65**	**1,499**	[d] 94
1983	**Average**	**1,642**	**190**	**[d] -4**	**253**	**73**	**1,509**	[d] 101
1984	**Average**	**1,697**	**195**	**[d] -19**	**291**	**48**	**1,572**	101
1985	**Average**	**1,704**	**187**	**-75**	**304**	**62**	**1,599**	74
1986	**Average**	**1,695**	**242**	**80**	**302**	**42**	**1,512**	103
1987	January	1,751	183	-500	419	43	1,971	87
	February	1,762	201	-205	341	38	1,789	81
	March	1,761	132	10	282	52	1,550	82
	April	1,775	149	121	274	36	1,493	85
	May	1,732	142	283	269	34	1,288	94
	June	1,732	119	175	255	22	1,400	99
	July	1,764	190	145	244	30	1,534	104
	August	1,717	198	259	252	33	1,372	112
	September	1,736	288	81	266	56	1,622	114
	October	1,736	233	-59	294	23	1,711	113
	November	1,763	233	-129	356	35	1,735	109
	December	1,753	214	-372	395	56	1,887	97
	Average	**1,748**	**190**	**-15**	**304**	**38**	**1,612**	--
1988	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	**1,817**	**209**	**1**	**321**	**49**	**1,656**	--
1989	January	1,876	230	-385	421	19	2,051	87
	February	1,795	269	-337	331	31	2,038	78
	March	1,899	155	-80	278	43	1,813	75
	April	1,950	121	292	245	27	1,506	84
	May	1,945	109	431	226	43	1,354	97
	June	1,823	149	266	255	35	1,416	105
	July	1,858	186	405	247	45	1,348	118
	August	1,787	204	273	245	40	1,432	126
	September	1,734	169	8	303	31	1,562	126
	October*	1,678	177	-246	372	31	1,698	119
	10-Mo. Average	**1,835**	**176**	**65**	**292**	**34**	**1,619**	--
1988	**10-Mo. Average**	**1,816**	**203**	**74**	**295**	**43**	**1,608**	--
1987	**10-Mo. Average**	**1,746**	**183**	**32**	**289**	**37**	**1,571**	--

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				Ending Stocks[c]
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**3,693**	**502**	**9**	**750**	**166**	**3,270**	**208**
1974	**Average**	**3,558**	**432**	**28**	**665**	**174**	**3,123**	[d] **218**
1975	**Average**	**3,418**	**277**	[d] **-4**	**537**	**160**	**3,002**	**219**
1976	**Average**	**3,643**	**206**	**5**	**524**	**175**	**3,145**	**220**
1977	**Average**	**3,912**	**205**	**27**	**514**	**165**	**3,410**	**230**
1978	**Average**	**4,046**	**166**	**-14**	**492**	**167**	**3,568**	**225**
1979	**Average**	**4,153**	**195**	**37**	**352**	**209**	**3,749**	**238**
1980	**Average**	**3,956**	**210**	**23**	**311**	**198**	**3,634**	[d] **247**
1981	**Average**	**3,739**	**226**	[d] **-46**	**723**	**199**	**3,088**	**282**
1982	**Average**	**3,453**	**334**	**-80**	**787**	**211**	**2,869**	[d] **253**
1983	**Average**	**3,460**	**411**	[d] **-6**	**712**	**242**	**2,923**	[d] **256**
1984	**Average**	**3,632**	**565**	[d] **-23**	**791**	**245**	**3,183**	**240**
1985	**Average**	**3,721**	**588**	**17**	**886**	**240**	**3,166**	**246**
1986	**Average**	**3,997**	**561**	**10**	**888**	**308**	**3,353**	**250**
1987	January	3,852	469	121	659	219	3,323	254
	February	3,796	687	389	352	320	3,422	265
	March	3,766	663	128	757	281	3,262	269
	April	3,933	589	-107	872	254	3,502	266
	May	4,049	529	-178	913	320	3,523	260
	June	4,203	712	-158	896	320	3,857	255
	July	4,363	550	-91	835	256	3,913	253
	August	4,340	616	148	693	238	3,876	257
	September	4,350	611	24	903	353	3,681	258
	October	4,223	686	-14	971	272	3,680	258
	November	4,010	583	20	975	305	3,294	258
	December	4,050	633	-261	1,091	330	3,523	250
	Average	**4,080**	**610**	**-1**	**829**	**289**	**3,572**	--
1988	January	3,942	706	136	812	354	3,347	254
	February	3,905	680	31	753	318	3,484	255
	March	4,147	666	282	687	328	3,515	264
	April	4,010	794	87	851	288	3,577	266
	May	4,071	843	335	501	274	3,803	277
	June	4,265	787	-43	777	379	3,939	276
	July	4,315	781	21	831	329	3,915	276
	August	4,413	701	-199	796	302	4,215	270
	September	4,245	651	-159	850	323	3,882	265
	October	4,163	771	-40	762	268	3,944	264
	November	4,068	823	43	818	303	3,728	265
	December	4,155	613	-429	1,153	392	3,653	252
	Average	**4,143**	**735**	**6**	**799**	**321**	**3,751**	--
1989	January	4,185	732	402	714	311	3,489	265
	February	3,924	802	201	731	302	3,492	270
	March	4,028	722	112	652	321	3,664	274
	April	3,906	817	114	815	306	3,489	277
	May	4,085	750	212	727	260	3,637	284
	June	4,334	668	-220	866	389	3,967	277
	July	4,436	658	-50	951	344	3,849	276
	August	4,410	667	-216	891	328	4,075	269
	September	4,401	770	140	733	343	3,954	273
	October*	4,160	692	15	733	337	3,767	274
	10-Mo. Average	**4,189**	**727**	**71**	**781**	**324**	**3,740**	--
1988	**10-Mo. Average**	**4,149**	**738**	**46**	**762**	**316**	**3,764**	--
1987	**10-Mo. Average**	**4,090**	**610**	**24**	**788**	**283**	**3,605**	--

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports*, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1988: EIA, *Petroleum Supply Annual.*

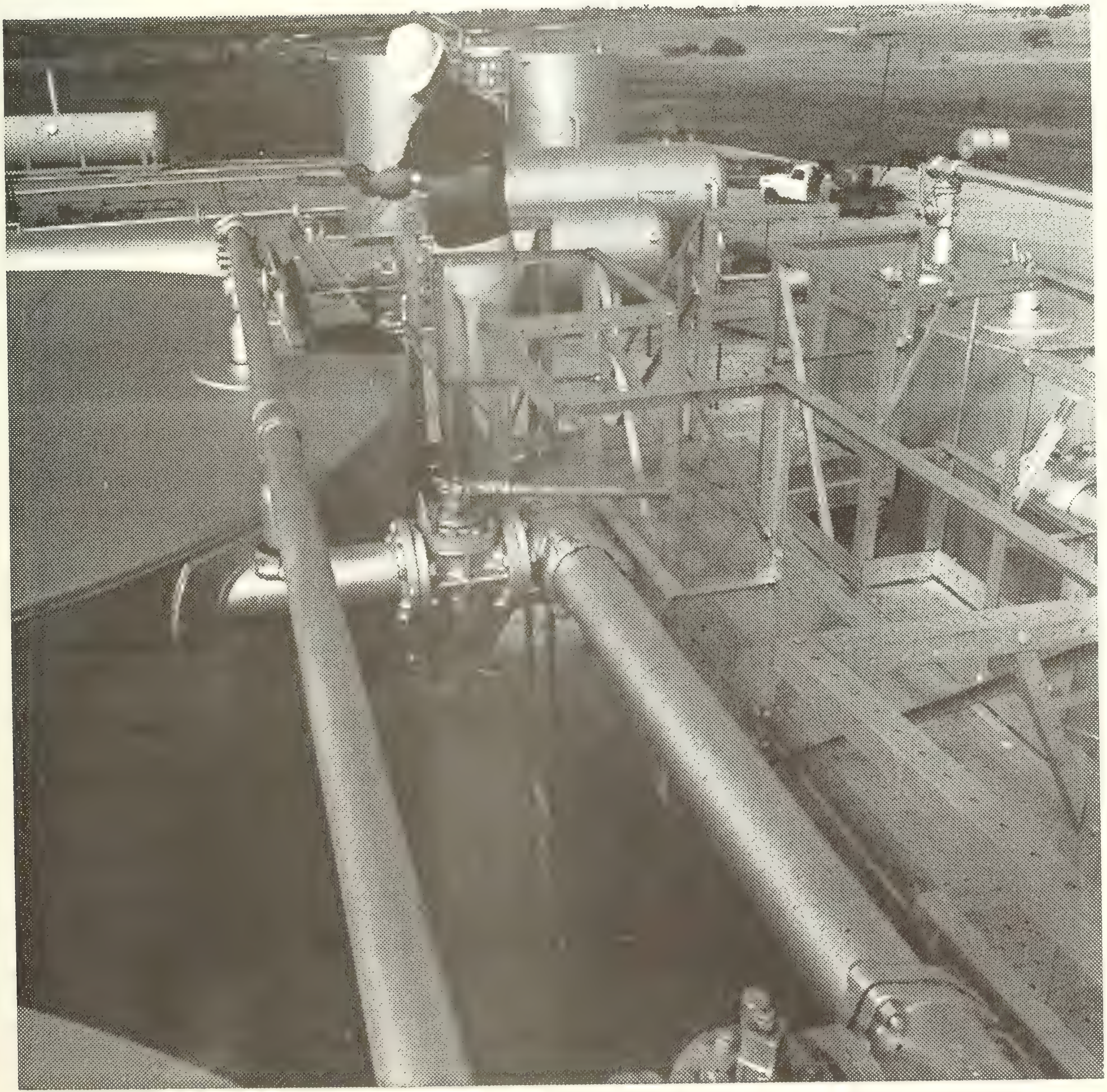
4. January 1989 through October 1989: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 5.)

5. November 1989: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)

6. January 1989 through November 1989: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 7).

Detailed Statistics



At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

ble 1. U.S. Petroleum Balance, October 1989

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
1)	Alaska	E 58,196	E 1,877	E 567,424	E 1,867
2)	Lower 48 States	E 173,125	E 5,585	E 1,762,430	E 5,797
3)	**Total U.S.**	E **231,321**	E **7,462**	E **2,329,854**	E 7,664
	Net Imports				
4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	190,357	6,141	1,746,710	5,746
5)	SPR Imports	1,153	37	18,768	62
6)	Exports	1,885	61	40,442	133
7)	**Imports (Net Including SPR)**	**189,625**	**6,117**	**1,725,036**	5,674
	Other Sources				
8)	SPR Stock Change (Withdrawal (+), Addition (-))	-1,140	-37	-18,756	-62
9)	Other Stock Change (Withdrawal (+), Addition (-))	-1,124	-36	-4,910	-16
0)	Product Supplied and Losses	-654	-21	-8,426	-28
1)	Unaccounted for[a]	-3,934	-127	56,960	187
2)	**Total Other Sources**	**-6,852**	**-221**	**24,868**	82
3)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**414,094**	**13,358**	**4,079,758**	13,420
	Natural Gas Liquids (NGL)				
4)	Field Production	45,775	1,477	477,607	1,571
5)	Net Imports[b]	50	2	46	(s)
6)	Stock Change (Withdrawal (+), Addition (-))[b]	193	6	-2,921	-10
7)	**Total NGL Supply**	**46,018**	**1,484**	**474,732**	1,562
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
8)	Stock Change (Withdrawal (+), Addition (-))	-3,824	-123	-13,574	-45
9)	Imports	12,507	403	126,315	416
20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,679	54	17,013	56
21)	Refinery Processing Gain[a]	18,512	597	193,646	637
22)	Crude Oil Product Supplied	641	21	8,355	27
23)	**Total Other Liquids** (23) = (18) through (22)	**29,515**	**952**	**331,755**	1,091
24)	**Total Production of Products** (24) = (13) + (17) + (23)	**489,627**	**15,794**	**4,886,245**	16,073
	Net Imports of Refined Products				
25)	Imports (Gross)	51,351	1,656	536,425	1,765
26)	Exports	22,591	729	208,594	686
27)	**Imports (Net)**	**28,760**	**928**	**327,831**	1,078
28)	**Total New Supply of Products** (28) = (24) + (27)	**518,387**	**16,722**	**5,214,076**	17,152
29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	12,072	389	-23,666	-78
30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	**530,459**	**17,112**	**5,190,410**	17,074
31)	Finished Motor Gasoline	224,940	7,256	2,223,375	7,314
32)	Distillate Fuel Oil	95,971	3,096	930,343	3,060
33)	Residual Fuel Oil	39,509	1,274	399,191	1,313
34)	Liquefied Petroleum Gases	52,628	1,698	492,211	1,619
35)	Other[c]	116,772	3,767	1,136,934	3,740
36)	Crude Oil	641	21	8,355	27
37)	**Total Products Supplied** (37) = (31) through (36)	**530,459**	**17,112**	**5,190,410**	17,074
	Ending Stocks, All Oils				
38)	Crude Oil (Excluding SPR)	336,160	--	336,160	--
39)	Strategic Petroleum Reserve	578,271	--	578,271	--
40)	Finished Motor Gasoline	183,695	--	183,695	--
41)	Distillate Fuel Oil	121,446	--	121,446	--
42)	Residual Fuel Oil	51,360	--	51,360	--
43)	Liquefied Petroleum Gases	118,793	--	118,793	--
44)	Other[c]	273,696	--	273,696	--
45)	**Total Stocks** (45) = (38) through (44)	**1,663,421**	**--**	**1,663,421**	--

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values y approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied etroleum gases.

(s) = Less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 231,321	--	191,510	-3,934	2,264	13	414,094	1,885	641	914,431
Natural Gas Liquids and LRGs	**45,775**	**15,737**	**5,579**	**--**	**-7,809**	**--**	**17,408**	**1,008**	**56,484**	**128,483**
Pentanes Plus	9,498	--	92	--	-193	--	5,885	42	3,856	9,690
Liquefied Petroleum Gases	36,277	15,737	5,487	--	-7,616	--	11,523	966	52,628	118,793
Ethane/Ethylene	13,129	519	158	--	88	--	168	5	13,545	24,620
Propane/Propylene	14,036	11,544	3,163	--	-3,564	--	271	699	31,337	56,972
Normal Butane/Butylene	4,401	3,223	1,479	--	-4,163	--	6,481	263	6,522	27,947
Isobutane	4,711	451	687	--	23	--	4,603	0	1,223	9,254
Other Liquids	**1,679**	**--**	**12,507**	**--**	**3,824**	**--**	**16,832**	**0**	**-6,470**	**152,723**
Other Hydrocarbons/Alcohol	1,679	--	0	--	-79	--	1,758	0	0	730
Unfinished Oils	--	--	10,738	--	5,111	--	12,595	0	-6,968	112,235
Motor Gasoline Blend. Comp.	--	--	1,769	--	-1,186	--	2,456	0	499	39,655
Aviation Gasoline Blend. Comp.	--	--	0	--	-22	--	23	0	-1	103
Finished Petroleum Products	**--**	**451,109**	**45,864**	**--**	**-4,456**	**--**	**--**	**21,624**	**479,805**	**467,784**
Finished Motor Gasoline	--	212,188	11,301	--	-2,344	--	--	893	224,940	183,695
Leaded	--	19,123	4	--	-1,808	--	--	172	20,763	19,320
Unleaded	--	193,065	11,297	--	-536	--	--	721	204,177	164,375
Finished Aviation Gasoline	--	882	13	--	233	--	--	0	662	2,180
Jet Fuel	--	46,566	2,160	--	1,818	--	--	918	45,990	50,428
Naphtha-Type	--	6,278	96	--	-564	--	--	68	6,870	6,255
Kerosene-Type	--	40,288	2,064	--	2,382	--	--	849	39,121	44,173
Kerosene	--	2,301	414	--	-45	--	--	10	2,750	7,520
Distillate Fuel Oil	--	90,091	7,872	--	-793	--	--	2,785	95,971	121,446
Residual Fuel Oil	--	31,046	17,829	--	1,838	--	--	7,528	39,509	51,360
Naphtha for Petro. Feed. Use	--	2,720	3,034	--	33	--	--	153	5,568	2,112
Other Oils for Petro. Feed. Use	--	6,056	1,576	--	61	--	--	961	6,610	1,974
Special Naphthas	--	1,691	161	--	-222	--	--	245	1,829	3,461
Lubricants	--	4,360	279	--	-1,004	--	--	513	5,130	13,234
Waxes	--	440	65	--	-53	--	--	44	514	876
Petroleum Coke	--	16,193	43	--	57	--	--	7,488	8,691	8,679
Asphalt and Road Oil	--	14,703	1,048	--	-4,076	--	--	53	19,774	17,846
Still Gas	--	19,697	0	--	0	--	--	0	19,697	0
Miscellaneous Products	--	2,175	69	--	41	--	--	32	2,171	2,973
Total	**278,775**	**466,846**	**255,460**	**-3,934**	**-6,177**	**13**	**448,334**	**24,517**	**530,459**	**1,663,421**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

able 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1989
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
rude Oil	**[E] 2,329,854**	**--**	**1,765,478**	**56,960**	**23,666**	**71**	**4,079,758**	**40,442**	**8,355**	**914,431**
atural Gas Liquids and LRGs	**477,607**	**175,429**	**55,726**	**--**	**22,829**	**--**	**145,474**	**12,584**	**527,875**	**128,483**
Pentanes Plus	95,218	--	2,142	--	2,921	--	56,679	2,096	35,664	9,690
Liquefied Petroleum Gases	382,389	175,429	53,584	--	19,908	--	88,795	10,488	492,211	118,793
Ethane/Ethylene	146,496	4,190	2,407	--	6,597	--	1,516	71	144,909	24,620
Propane/Propylene	143,694	119,993	32,472	--	6,582	--	3,358	7,267	278,952	56,972
Normal Butane/Butylene	46,421	46,617	15,818	--	6,501	--	38,183	3,150	61,022	27,947
Isobutane	45,778	4,629	2,887	--	228	--	45,738	0	7,328	9,254
ther Liquids	**17,013**	**--**	**126,315**	**--**	**13,574**	**--**	**180,890**	**0**	**-51,136**	**152,723**
Other Hydrocarbons/Alcohol	17,013	--	0	--	195	--	16,818	0	0	730
Unfinished Oils	--	--	109,318	--	12,422	--	151,787	0	-54,891	112,235
Motor Gasoline Blend. Comp.	--	--	16,997	--	1,104	--	12,159	0	3,734	39,655
Aviation Gasoline Blend. Comp.	--	--	0	--	-147	--	126	0	21	103
inished Petroleum Products	**--**	**4,424,339**	**482,841**	**--**	**3,758**	**--**	**--**	**198,106**	**4,705,316**	**467,784**
Finished Motor Gasoline	--	2,118,396	111,593	--	-5,985	--	--	12,599	2,223,375	183,695
Leaded	--	247,885	1,102	--	-20,809	--	--	2,202	267,594	19,320
Unleaded	--	1,870,511	110,491	--	14,824	--	--	10,396	1,955,782	164,375
Finished Aviation Gasoline	--	7,949	175	--	62	--	--	0	8,062	2,180
Jet Fuel	--	424,669	31,101	--	6,700	--	--	6,523	442,547	50,428
Naphtha-Type	--	62,575	1,159	--	204	--	--	469	63,061	6,255
Kerosene-Type	--	362,094	29,942	--	6,496	--	--	6,054	379,486	44,173
Kerosene	--	21,425	1,835	--	237	--	--	155	22,868	7,520
Distillate Fuel Oil	--	864,617	91,223	--	-2,023	--	--	27,520	930,343	121,446
Residual Fuel Oil	--	280,054	187,528	--	6,812	--	--	61,579	399,191	51,360
Naphtha for Petro. Feed. Use	--	34,826	24,451	--	82	--	--	1,363	57,832	2,112
Other Oils for Petro. Feed. Use	--	67,475	18,218	--	231	--	--	6,586	78,876	1,974
Special Naphthas	--	18,714	2,136	--	-88	--	--	3,352	17,586	3,461
Lubricants	--	50,199	3,431	--	-64	--	--	5,316	48,378	13,234
Waxes	--	5,154	505	--	38	--	--	499	5,122	876
Petroleum Coke	--	165,141	301	--	889	--	--	71,079	93,474	8,679
Asphalt and Road Oil	--	135,811	9,686	--	-2,971	--	--	1,078	147,390	17,846
Still Gas	--	208,769	0	--	0	--	--	0	208,769	0
Miscellaneous Products	--	21,140	658	--	-162	--	--	458	21,502	2,973
otal	**2,824,474**	**4,599,768**	**2,430,360**	**56,960**	**63,827**	**71**	**4,406,122**	**251,133**	**5,190,410**	**1,663,421**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values y approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1989

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	**E 7,462**	**--**	**6,178**	**-127**	**73**	**(s)**	**13,358**	**61**	**21**
Natural Gas Liquids and LRGs	**1,477**	**508**	**180**	**--**	**-252**	**--**	**562**	**33**	**1,822**
Pentanes Plus	306	--	3	--	-6	--	190	1	124
Liquefied Petroleum Gases	1,170	508	177	--	-246	--	372	31	1,698
Ethane/Ethylene	424	17	5	--	3	--	5	(s)	437
Propane/Propylene	453	372	102	--	-115	--	9	23	1,011
Normal Butane/Butylene	142	104	48	--	-134	--	209	8	210
Isobutane	152	15	22	--	1	--	148	0	39
Other Liquids	**54**	**--**	**403**	**--**	**123**	**--**	**543**	**0**	**-209**
Other Hydrocarbons/Alcohol	54	--	0	--	-3	--	57	0	0
Unfinished Oils	--	--	346	--	165	--	406	0	-225
Motor Gasoline Blend. Comp.	--	--	57	--	-38	--	79	0	16
Aviation Gasoline Blend. Comp.	--	--	0	--	-1	--	1	0	(s)
Finished Petroleum Products	**--**	**14,552**	**1,479**	**--**	**-144**	**--**	**--**	**698**	**15,478**
Finished Motor Gasoline	--	6,845	365	--	-76	--	--	29	7,256
Leaded	--	617	(s)	--	-58	--	--	6	670
Unleaded	--	6,228	364	--	-17	--	--	23	6,586
Finished Aviation Gasoline	--	28	(s)	--	8	--	--	0	21
Jet Fuel	--	1,502	70	--	59	--	--	30	1,484
Naphtha-Type	--	203	3	--	-18	--	--	2	222
Kerosene-Type	--	1,300	67	--	77	--	--	27	1,262
Kerosene	--	74	13	--	-1	--	--	(s)	89
Distillate Fuel Oil	--	2,906	254	--	-26	--	--	90	3,096
Residual Fuel Oil	--	1,001	575	--	59	--	--	243	1,274
Naphtha for Petro. Feed. Use	--	88	98	--	1	--	--	5	180
Other Oils for Petro. Feed. Use	--	195	51	--	2	--	--	31	213
Special Naphthas	--	55	5	--	-7	--	--	8	59
Lubricants	--	141	9	--	-32	--	--	17	165
Waxes	--	14	2	--	-2	--	--	1	17
Petroleum Coke	--	522	1	--	2	--	--	242	280
Asphalt and Road Oil	--	474	34	--	-131	--	--	2	638
Still Gas	--	635	0	--	0	--	--	0	635
Miscellaneous Products	--	70	2	--	1	--	--	1	70
Total	**8,993**	**15,060**	**8,241**	**-127**	**-199**	**(s)**	**14,462**	**791**	**17,112**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	**E 7,664**	**--**	**5,807**	**187**	**78**	**(s)**	**13,420**	**133**	**27**
Natural Gas Liquids and LRGs	**1,571**	**577**	**183**	**--**	**75**	**--**	**479**	**41**	**1,736**
Pentanes Plus	313	--	7	--	10	--	186	7	117
Liquefied Petroleum Gases	1,258	577	176	--	65	--	292	34	1,619
Ethane/Ethylene	482	14	8	--	22	--	5	(s)	477
Propane/Propylene	473	395	107	--	22	--	11	24	918
Normal Butane/Butylene	153	153	52	--	21	--	126	10	201
Isobutane	151	15	9	--	1	--	150	0	24
Other Liquids	**56**	**--**	**416**	**--**	**45**	**--**	**595**	**0**	**-168**
Other Hydrocarbons/Alcohol	56	--	0	--	1	--	55	0	0
Unfinished Oils	--	--	360	--	41	--	499	0	-181
Motor Gasoline Blend. Comp.	--	--	56	--	4	--	40	0	12
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	**--**	**14,554**	**1,588**	**--**	**12**	**--**	**--**	**652**	**15,478**
Finished Motor Gasoline	--	6,968	367	--	-20	--	--	41	7,314
Leaded	--	815	4	--	-68	--	—	7	880
Unleaded	--	6,153	363	--	49	--	--	34	6,433
Finished Aviation Gasoline	--	26	1	--	(s)	--	--	0	27
Jet Fuel	--	1,397	102	--	22	--	--	21	1,456
Naphtha-Type	--	206	4	--	1	--	--	2	207
Kerosene-Type	--	1,191	98	--	21	--	--	20	1,248
Kerosene	--	70	6	--	1	--	--	1	75
Distillate Fuel Oil	--	2,844	300	--	-7	--	—	91	3,060
Residual Fuel Oil	--	921	617	--	22	--	--	203	1,313
Naphtha for Petro. Feed. Use	--	115	80	--	(s)	--	--	4	190
Other Oils for Petro. Feed. Use	--	222	60	--	1	--	--	22	259
Special Naphthas	--	62	7	--	(s)	--	--	11	58
Lubricants	--	165	11	--	(s)	--	--	17	159
Waxes	--	17	2	--	(s)	--	--	2	17
Petroleum Coke	--	543	1	--	3	--	--	234	307
Asphalt and Road Oil	--	447	32	--	-10	--	--	4	485
Still Gas	--	687	0	--	0	--	--	0	687
Miscellaneous Products	--	70	2	--	-1	--	--	2	71
Total	**9,291**	**15,131**	**7,995**	**187**	**210**	**(s)**	**14,494**	**826**	**17,074**

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989

(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	**E 1,119**	**--**	**44,005**	**-2,966**	**523**	**134**	**0**	**42,547**	**(s)**	**0**	**14,7**
Natural Gas Liquids and LRGs	**950**	**1,413**	**460**	**--**	**3,061**	**-396**	**--**	**111**	**78**	**6,091**	**5,7**
Pentanes Plus	128	--	0	--	0	-8	--	0	3	133	1
Liquefied Petroleum Gases	822	1,413	460	--	3,061	-388	--	111	74	5,959	5,6
Ethane/Ethylene	244	185	0	--	0	-3	--	0	5	427	
Propane/Propylene	380	1,258	271	--	3,035	-119	--	0	52	5,011	4,7
Normal Butane/Butylene	145	-137	185	--	0	-275	--	60	17	391	7
Isobutane	53	107	4	--	26	9	--	51	0	130	
Other Liquids	**13**	**--**	**5,395**	**--**	**265**	**1,285**	**--**	**5,654**	**0**	**-1,266**	**19,8**
Other Hydrocarbons/Alcohol	13	--	0	--	0	-90	--	103	0	0	1
Unfinished Oils	--	--	3,876	--	210	2,024	--	4,424	0	-2,362	14,8
Motor Gasoline Blend. Comp.	--	--	1,519	--	55	-649	--	1,127	0	1,096	4,84
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	
Finished Petroleum Products	**--**	**49,089**	**36,063**	**--**	**76,139**	**6,561**	**--**	**--**	**399**	**154,331**	**164,25**
Finished Motor Gasoline	--	21,596	10,666	--	43,835	2,546	--	--	5	73,546	58,71
Leaded	--	356	0	--	1,075	-741	--	--	2	2,170	1,64
Unleaded	--	21,240	10,666	--	42,760	3,287	--	--	3	71,376	57,07
Finished Aviation Gasoline	--	22	2	--	104	10	--	--	0	118	28
Jet Fuel	--	3,231	1,128	--	12,466	-24	--	--	(s)	16,849	12,51
Naphtha-Type	--	693	0	--	981	-140	--	--	0	1,814	93
Kerosene-Type	--	2,538	1,128	--	11,485	116	--	--	(s)	15,035	11,58
Kerosene	--	120	184	--	677	-50	--	--	4	1,027	3,3
Distillate Fuel Oil	--	12,009	7,371	--	16,093	1,578	--	--	5	33,890	51,74
Residual Fuel Oil	--	3,749	15,293	--	1,052	2,961	--	--	6	17,127	25,23
Petrochemical Feedstocks[e]	--	299	117	--	8	39	--	--	41	344	37
Special Naphthas	--	33	4	--	221	-172	--	--	207	223	94
Lubricants	--	616	224	--	1,204	-32	--	--	90	1,986	2,94
Waxes	--	63	56	--	22	-4	--	--	6	139	4
Petroleum Coke	--	1,378	0	--	0	199	--	--	20	1,159	96
Asphalt and Road Oil	--	3,619	953	--	415	-714	--	--	2	5,699	6,03
Still Gas	--	1,987	0	--	0	0	--	--	0	1,987	
Miscellaneous Products	--	367	65	--	42	224	--	--	13	237	1,12
Total	**2,082**	**50,502**	**85,923**	**-2,966**	**79,988**	**7,584**	**0**	**48,312**	**477**	**159,156**	**204,66**

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 34	--	1,190	20	30	-3	(s)	1,277	(s)	0
Natural Gas Liquids and LRGs	27	56	29	--	89	3	--	4	3	193
Pentanes Plus	4	--	4	--	0	(s)	--	1	1	6
Liquefied Petroleum Gases	24	56	25	--	89	3	--	3	2	186
Ethane/Ethylene	8	5	0	--	0	(s)	--	0	(s)	12
Propane/Propylene	11	43	20	--	87	3	--	0	1	157
Normal Butane/Butylene	4	7	5	--	1	(s)	--	2	1	14
Isobutane	1	1	(s)	--	1	(s)	--	2	0	3
Other Liquids	3	--	166	--	15	8	--	213	0	-38
Other Hydrocarbons/Alcohol	3	--	0	--	0	1	--	2	0	0
Unfinished Oils	--	--	125	--	6	8	--	186	0	-63
Motor Gasoline Blend. Comp.	--	--	41	--	9	(s)	--	25	0	24
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,507	1,303	--	2,368	46	--	--	20	5,111
Finished Motor Gasoline	--	689	335	--	1,410	4	--	--	1	2,430
Leaded	--	24	3	--	88	-21	--	--	1	135
Unleaded	--	665	333	--	1,323	24	--	--	(s)	2,295
Finished Aviation Gasoline	--	(s)	(s)	--	5	(s)	--	--	0	6
Jet Fuel	--	86	61	--	340	7	--	--	(s)	480
Naphtha-Type	--	17	0	--	19	(s)	--	--	(s)	36
Kerosene-Type	--	69	61	--	320	7	--	--	(s)	444
Kerosene	--	7	4	--	13	1	--	--	(s)	24
Distillate Fuel Oil	--	351	282	--	519	8	--	--	2	1,142
Residual Fuel Oil	--	120	570	--	18	21	--	--	3	685
Petrochemical Feedstocks[e]	--	9	7	--	(s)	(s)	--	--	1	15
Special Naphthas	--	4	(s)	--	8	-1	--	--	4	8
Lubricants	--	22	10	--	36	(s)	--	--	4	64
Waxes	--	3	1	--	(s)	(s)	--	--	(s)	4
Petroleum Coke	--	42	(s)	--	0	(s)	--	--	3	39
Asphalt and Road Oil	--	95	30	--	14	5	--	--	(s)	134
Still Gas	--	66	0	--	0	0	--	--	0	66
Miscellaneous Products	--	12	2	--	3	1	--	--	(s)	15
Total	64	1,563	2,688	20	2,502	55	(s)	1,494	22	5,266

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	E 23,191	--	12,785	1,849	48,942	4,675	0	81,985	107	0	73,8
Natural Gas Liquids and LRGs	8,069	2,537	2,866	--	1,041	-4,386	--	4,265	402	14,232	35,4
Pentanes Plus	1,433	--	30	--	605	91	--	1,149	22	806	3,3
Liquefied Petroleum Gases	6,636	2,537	2,836	--	436	-4,477	--	3,116	380	13,426	32,0
Ethane/Ethylene	1,835	24	0	--	-676	46	--	0	0	1,137	4,9
Propane/Propylene	3,078	2,479	2,263	--	532	-3,173	--	4	220	11,301	16,5
Normal Butane/Butylene	1,105	22	471	--	82	-1,382	--	1,892	160	1,010	7,8
Isobutane	618	12	102	--	498	32	--	1,220	0	-22	2,7
Other Liquids	220	--	0	--	43	1,062	--	1,918	0	-2,717	28,2
Other Hydrocarbons/Alcohol	220	--	0	--	0	-29	--	249	0	0	1
Unfinished Oils	--	--	0	--	73	1,945	--	-757	0	-1,115	19,3
Motor Gasoline Blend. Comp.	--	--	0	--	-30	-834	--	2,406	0	-1,602	8,7
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-20	--	20	0	0	
Finished Petroleum Products	--	88,945	914	--	27,026	-9,248	--	--	1,965	124,168	105,6
Finished Motor Gasoline	--	48,217	235	--	17,096	-2,699	--	--	2	68,245	50,5
Leaded	--	3,595	0	--	780	-801	--	--	1	5,175	6,7
Unleaded	--	44,622	235	--	16,316	-1,898	--	--	1	63,070	43,8
Finished Aviation Gasoline	--	153	0	--	55	-17	--	--	0	225	4
Jet Fuel	--	4,953	92	--	2,406	-443	--	--	1	7,893	9,3
Naphtha-Type	--	588	92	--	128	30	--	--	0	778	9
Kerosene-Type	--	4,365	0	--	2,278	-473	--	--	1	7,115	8,3
Kerosene	--	336	0	--	66	43	--	--	2	357	1,9
Distillate Fuel Oil	--	20,155	386	--	6,857	-2,244	--	--	125	29,517	28,6
Residual Fuel Oil	--	2,115	74	--	-308	-138	--	--	0	2,019	3,3
Petrochemical Feedstocks[e]	--	1,086	20	--	160	-48	--	--	35	1,279	3
Special Naphthas	--	394	23	--	120	-51	--	--	9	579	6
Lubricants	--	531	28	--	373	-200	--	--	45	1,087	2,0
Waxes	--	56	8	--	0	7	--	--	4	53	
Petroleum Coke	--	3,239	0	--	0	-252	--	--	1,705	1,786	2,7
Asphalt and Road Oil	--	3,844	44	--	210	-3,084	--	--	33	7,149	5,2
Still Gas	--	3,566	0	--	0	0	--	--	0	3,566	
Miscellaneous Products	--	300	4	--	-9	-122	--	--	2	415	1
Total	31,480	91,482	16,565	1,849	77,052	-7,897	0	88,168	2,475	135,683	243,2

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 771	--	439	22	1,695	8	0	2,912	7	0
Natural Gas Liquids and LRGs	289	95	90	--	27	11	--	111	10	370
Pentanes Plus	47	--	1	--	22	3	--	36	1	30
Liquefied Petroleum Gases	242	95	89	--	6	8	--	74	9	340
Ethane/Ethylene	75	1	4	--	-27	3	--	(s)	0	51
Propane/Propylene	107	92	67	--	19	-3	--	2	6	280
Normal Butane/Butylene	39	3	15	--	-1	7	--	29	3	17
Isobutane	20	(s)	3	--	15	2	--	44	0	-8
Other Liquids	7	--	0	--	7	18	--	51	0	-56
Other Hydrocarbons/Alcohol	7	--	0	--	0	(s)	--	7	0	0
Unfinished Oils	--	--	0	--	7	14	--	18	0	-24
Motor Gasoline Blend. Comp.	--	--	0	--	-1	5	--	26	0	-31
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	3,111	24	--	769	-18	--	--	18	3,904
Finished Motor Gasoline	--	1,675	4	--	485	-7	--	--	(s)	2,170
Leaded	--	160	(s)	--	43	-21	--	--	(s)	224
Unleaded	--	1,515	4	--	442	15	--	–	(s)	1,946
Finished Aviation Gasoline	--	3	0	--	3	(s)	--	--	0	6
Jet Fuel	--	189	3	--	88	3	--	--	(s)	277
Naphtha-Type	--	20	3	--	1	(s)	--	--	(s)	24
Kerosene-Type	--	169	0	--	87	3	--	--	(s)	253
Kerosene	--	13	0	--	-2	(s)	--	--	(s)	11
Distillate Fuel Oil	--	670	7	--	183	-9	--	--	1	868
Residual Fuel Oil	--	70	5	--	-11	(s)	--	--	(s)	64
Petrochemical Feedstocks[e]	--	41	1	--	3	(s)	--	--	1	44
Special Naphthas	--	14	2	--	4	(s)	--	--	(s)	20
Lubricants	--	21	1	--	9	(s)	--	--	1	30
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	115	0	--	0	4	--	--	10	101
Asphalt and Road Oil	--	146	1	--	7	-8	--	--	3	159
Still Gas	--	140	0	--	0	0	--	--	0	140
Miscellaneous Products	--	12	(s)	--	(s)	-1	--	--	(s)	12
Total	1,067	3,206	553	22	2,497	19	0	3,073	35	4,218

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989

(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 101,776	--	123,911	742	-33,135	-400	13	193,681	0	0	736,68
Natural Gas Liquids and LRGs	30,672	9,886	1,788	--	-2,416	-2,864	--	10,056	280	32,458	81,37
Pentanes Plus	5,900	--	0	--	-353	-318	--	3,596	13	2,256	5,97
Liquefied Petroleum Gases	24,772	9,886	1,788	--	-2,063	-2,546	--	6,460	267	30,202	75,397
Ethane/Ethylene	10,277	269	158	--	1,239	46	--	168	0	11,729	19,48
Propane/Propylene	8,954	6,542	447	--	-3,163	-258	--	259	187	12,592	34,187
Normal Butane/Butylene	1,945	2,741	619	--	202	-2,390	--	3,209	80	4,608	15,88
Isobutane	3,596	334	564	--	-341	56	--	2,824	0	1,273	5,84
Other Liquids	1,006	--	5,945	--	-404	548	--	7,970	0	-1,971	67,78
Other Hydrocarbons/Alcohol	1,006	--	0	--	0	23	--	983	0	0	32
Unfinished Oils	--	--	5,695	--	-379	120	--	8,111	0	-2,915	50,80
Motor Gasoline Blend. Comp.	--	--	250	--	-25	402	--	-1,122	0	945	16,614
Aviation Gasoline Blend. Comp.	--	--	0	--	0	3	--	-2	0	-1	41
Finished Petroleum Products	--	210,284	6,306	--	-106,218	-3,490	--	--	9,484	104,378	131,250
Finished Motor Gasoline	--	97,521	291	--	-62,574	-3,002	--	--	408	37,832	47,187
Leaded	--	4,808	0	--	-2,116	-743	--	--	168	3,267	3,407
Unleaded	--	92,713	291	--	-60,458	-2,259	--	--	240	34,565	43,780
Finished Aviation Gasoline	--	518	9	--	-176	158	--	--	0	193	79
Jet Fuel	--	24,157	813	--	-16,111	1,219	--	--	882	6,758	19,246
Naphtha-Type	--	2,856	0	--	-1,381	-546	--	--	68	1,953	2,027
Kerosene-Type	--	21,301	813	--	-14,730	1,765	--	--	813	4,806	17,21
Kerosene	--	1,733	230	--	-743	-26	--	--	1	1,245	1,991
Distillate Fuel Oil	--	40,449	0	--	-23,157	-304	--	--	2,016	15,580	27,504
Residual Fuel Oil	--	12,672	296	--	-744	-898	--	--	2,247	10,875	14,343
Petrochemical Feedstocks[e]	--	7,575	4,473	--	-168	119	--	--	775	10,986	2,966
Special Naphthas	--	1,193	123	--	-341	41	--	--	11	923	1,748
Lubricants	--	2,739	21	--	-1,524	-707	--	--	265	1,678	6,516
Waxes	--	242	0	--	-22	-38	--	--	24	234	473
Petroleum Coke	--	7,111	0	--	0	0	--	--	2,841	4,270	2,97
Asphalt and Road Oil	--	3,790	50	--	-625	-93	--	--	2	3,306	4,091
Still Gas	--	9,257	0	--	0	0	--	--	0	9,257	0
Miscellaneous Products	--	1,327	0	--	-33	41	--	--	11	1,242	1,413
Total	133,454	220,170	137,950	742	-142,173	-6,206	13	211,707	9,764	134,865	1,017,094

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,456	--	3,848	101	-1,152	80	(s)	6,173	0	0
Natural Gas Liquids and LRGs	1,054	355	50	--	-58	54	--	281	18	1,047
Pentanes Plus	195	--	(s)	--	-14	6	--	117	5	54
Liquefied Petroleum Gases	858	355	50	--	-43	48	--	164	13	994
Ethane/Ethylene	369	6	4	--	49	19	--	5	(s)	405
Propane/Propylene	303	218	14	--	-91	21	--	9	10	404
Normal Butane/Butylene	71	118	27	--	9	10	--	60	4	152
Isobutane	115	12	5	--	-11	-1	--	90	0	32
Other Liquids	30	--	241	--	-26	16	--	298	0	-70
Other Hydrocarbons/Alcohol	30	--	0	--	0	(s)	--	30	0	0
Unfinished Oils	--	--	227	--	-18	11	--	286	0	-88
Motor Gasoline Blend. Comp.	--	--	14	--	-8	5	--	-17	0	18
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	6,692	193	--	-3,231	8	--	--	301	3,346
Finished Motor Gasoline	--	3,188	5	--	-1,947	-9	--	--	30	1,224
Leaded	--	295	1	--	-140	-20	--	--	5	171
Unleaded	--	2,892	4	--	-1,807	12	--	--	25	1,053
Finished Aviation Gasoline	--	15	(s)	--	-8	(s)	--	--	0	7
Jet Fuel	--	696	28	--	-460	14	--	--	15	236
Naphtha-Type	--	100	0	--	-27	(s)	--	--	2	71
Kerosene-Type	--	596	28	--	-433	14	--	--	13	165
Kerosene	--	45	2	--	-12	(s)	--	--	(s)	35
Distillate Fuel Oil	--	1,272	4	--	-712	-2	--	--	54	512
Residual Fuel Oil	--	340	16	--	-7	6	--	--	44	298
Petrochemical Feedstocks[e]	--	270	132	--	-3	1	--	--	16	382
Special Naphthas	--	40	4	--	-12	1	--	--	4	27
Lubricants	--	101	(s)	--	-45	-1	--	--	8	49
Waxes	--	9	(s)	--	(s)	(s)	--	--	1	8
Petroleum Coke	--	245	1	--	0	-2	--	--	128	119
Asphalt and Road Oil	--	111	1	--	-21	(s)	--	--	(s)	91
Still Gas	--	320	0	--	0	0	--	--	0	320
Miscellaneous Products	--	40	(s)	--	-3	-1	--	--	(s)	38
Total	4,539	7,047	4,332	101	-4,466	158	(s)	6,753	319	4,323

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	**E 15,915**	**--**	**1,732**	**796**	**-4,122**	**512**	**0**	**13,809**	**0**	**0**	**12,1**
Natural Gas Liquids and LRGs	**3,632**	**221**	**292**	**--**	**-1,686**	**61**	**--**	**738**	**0**	**1,660**	**1,3**
Pentanes Plus	745	--	62	--	-252	38	--	197	0	320	1
Liquefied Petroleum Gases	2,887	221	230	--	-1,434	23	--	541	0	1,340	1,1
Ethane/Ethylene	772	5	0	--	-563	-1	--	0	0	215	1
Propane/Propylene	1,323	206	115	--	-404	27	--	6	0	1,207	5
Normal Butane/Butylene	552	-16	114	--	-284	-51	--	437	0	-20	3
Isobutane	240	26	1	--	-183	48	--	98	0	-62	1
Other Liquids	**62**	**--**	**0**	**--**	**0**	**-252**	**--**	**252**	**0**	**62**	**4,4**
Other Hydrocarbons/Alcohol	62	--	0	--	0	-5	--	67	0	0	1
Unfinished Oils	--	--	0	--	0	-92	--	-29	0	121	2,4
Motor Gasoline Blend. Comp.	--	--	0	--	0	-155	--	214	0	-59	1,9
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	
Finished Petroleum Products	**--**	**14,886**	**97**	**--**	**-284**	**-686**	**--**	**--**	**6**	**15,379**	**9,8**
Finished Motor Gasoline	--	7,450	32	--	-166	-96	--	--	0	7,412	4,4
Leaded	--	2,310	2	--	-296	0	--	--	0	2,016	1,6
Unleaded	--	5,140	30	--	130	-96	--	--	0	5,396	2,8
Finished Aviation Gasoline	--	23	0	--	17	4	--	--	0	36	
Jet Fuel	--	1,318	0	--	359	-64	--	--	0	1,741	1,1
Naphtha-Type	--	519	0	--	-114	-29	--	--	0	434	4
Kerosene-Type	--	799	0	--	473	-35	--	--	0	1,307	7
Kerosene	--	-23	0	--	0	-39	--	--	0	16	
Distillate Fuel Oil	--	3,948	65	--	-494	-195	--	--	0	3,714	2,5
Residual Fuel Oil	--	230	0	--	0	-83	--	--	1	312	4
Petrochemical Feedstocks[e]	--	-7	0	--	0	-18	--	--	0	11	
Special Naphthas	--	3	0	--	0	1	--	--	0	2	
Lubricants	--	13	0	--	0	5	--	--	3	5	1
Waxes	--	-5	0	--	0	-37	--	--	0	32	4
Petroleum Coke	--	315	0	--	0	-7	--	--	1	321	
Asphalt and Road Oil	--	983	0	--	0	-153	--	--	1	1,135	8
Still Gas	--	570	0	--	0	0	--	--	0	570	
Miscellaneous Products	--	68	0	--	0	-4	--	--	0	72	
Total	19,609	15,107	2,121	796	-6,092	-365	0	14,799	6	17,101	27,7

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.
[b] Unaccounted for crude oil is a balancing item.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.
[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
(s) = Less than 500 barrels.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 520**	**--**	**69**	**40**	**-172**	**1**	**0**	**456**	**0**	**0**
Natural Gas Liquids and LRGs	**121**	**7**	**9**	**--**	**-59**	**1**	--	**19**	**(s)**	58
Pentanes Plus	25	--	2	--	-7	(s)	--	5	(s)	14
Liquefied Petroleum Gases	96	7	7	--	-51	1	--	14	(s)	44
Ethane/Ethylene	30	(s)	0	--	-22	(s)	--	(s)	(s)	7
Propane/Propylene	41	7	4	--	-15	(s)	--	(s)	(s)	37
Normal Butane/Butylene	17	2	3	--	-9	(s)	--	11	(s)	2
Isobutane	7	-1	(s)	--	-5	(s)	--	3	0	-2
Other Liquids	**1**	**--**	**0**	**--**	**0**	**1**	**--**	**-2**	**0**	**2**
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	1	0	0
Unfinished Oils	--	--	0	--	0	2	--	-6	0	4
Motor Gasoline Blend. Comp.	--	--	0	--	0	-1	--	3	0	-2
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	**--**	**475**	**4**	**--**	**-8**	**-9**	**--**	**--**	**(s)**	**479**
Finished Motor Gasoline	--	236	1	--	-10	-2	--	--	(s)	230
Leaded	--	74	(s)	--	-9	-1	--	--	(s)	66
Unleaded	--	163	1	--	-1	-1	--	--	(s)	164
Finished Aviation Gasoline	--	1	0	--	1	(s)	--	--	0	1
Jet Fuel	--	41	0	--	13	(s)	--	--	(s)	53
Naphtha-Type	--	15	0	--	-4	(s)	--	--	(s)	11
Kerosene-Type	--	26	0	--	16	(s)	--	--	0	42
Kerosene	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Distillate Fuel Oil	--	121	2	--	-11	-1	--	--	(s)	114
Residual Fuel Oil	--	10	(s)	--	0	-1	--	--	(s)	11
Petrochemical Feedstocks[e]	--	1	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	(s)	--	0	(s)	--	--	(s)	(s)
Lubricants	--	1	0	--	0	(s)	--	--	(s)	1
Waxes	--	1	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	11
Asphalt and Road Oil	--	29	0	--	0	-5	--	--	(s)	35
Still Gas	--	20	0	--	0	0	--	--	0	20
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	**642**	**482**	**82**	**40**	**-238**	**-6**	**0**	**473**	**(s)**	**540**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.
[b] Unaccounted for crude oil is a balancing item.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.
[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
(s) = Less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1989
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Endin Stock
Crude Oil	E 89,320	--	9,077	-4,356	-12,208	-2,657	0	82,072	1,777	641	76,9
Natural Gas Liquids and LRGs	2,452	1,680	173	--	0	-224	--	2,238	249	2,042	4,6
Pentanes Plus	1,292	--	0	--	0	4	--	943	4	341	
Liquefied Petroleum Gases	1,160	1,680	173	--	0	-228	--	1,295	245	1,701	4,5
Ethane/Ethylene	1	36	0	--	0	0	--	0	0	37	
Propane/Propylene	301	1,059	67	--	0	-41	--	2	239	1,227	9
Normal Butane/Butylene	654	613	90	--	0	-65	--	883	6	533	3,1
Isobutane	204	-28	16	--	0	-122	--	410	0	-96	4
Other Liquids	378	--	1,167	--	96	1,181	--	1,038	0	-578	32,3
Other Hydrocarbons/Alcohol	378	--	0	--	0	22	--	356	0	0	
Unfinished Oils	--	--	1,167	--	96	1,114	--	846	0	-697	24,8
Motor Gasoline Blend. Comp.	--	--	0	--	0	50	--	-169	0	119	7,5
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-5	--	5	0	0	
Finished Petroleum Products	--	87,905	2,484	--	3,337	2,407	--	--	9,770	81,549	56,7
Finished Motor Gasoline	--	37,404	77	--	1,809	907	--	--	478	37,905	22,7
Leaded	--	8,054	2	--	557	477	--	--	1	8,135	5,8
Unleaded	--	29,350	75	--	1,252	430	--	--	477	29,770	16,9
Finished Aviation Gasoline	--	166	2	--	0	78	--	--	0	90	5
Jet Fuel	--	12,907	127	--	880	1,130	--	--	35	12,749	8,1
Naphtha-Type	--	1,622	4	--	386	121	--	--	0	1,891	1,9
Kerosene-Type	--	11,285	123	--	494	1,009	--	--	35	10,858	6,2
Kerosene	--	135	0	--	0	27	--	--	2	106	1
Distillate Fuel Oil	--	13,530	50	--	701	372	--	--	639	13,270	10,9
Residual Fuel Oil	--	12,280	2,166	--	0	-4	--	--	5,275	9,175	7,9
Petrochemical Feedstocks[e]	--	-177	0	--	0	2	--	--	263	-442	3
Special Naphthas	--	68	11	--	0	-41	--	--	18	102	1
Lubricants	--	461	6	--	-53	-70	--	--	109	375	1,4
Waxes	--	84	1	--	0	19	--	--	10	56	2
Petroleum Coke	--	4,150	43	--	0	117	--	--	2,921	1,155	2,0
Asphalt and Road Oil	--	2,467	1	--	0	-32	--	--	15	2,485	1,6
Still Gas	--	4,317	0	--	0	0	--	--	0	4,317	
Miscellaneous Products	--	113	0	--	0	-98	--	--	6	205	2
Total	92,150	89,585	12,901	-4,356	-8,775	707	0	85,348	11,796	83,654	170,6

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1989

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	[E] **2,882**	**--**	**262**	**4**	**-401**	**-9**	**(s)**	**2,602**	**126**	**27**
Natural Gas Liquids and LRGs	**81**	**63**	**5**	**--**	**0**	**6**	**--**	63	11	69
Pentanes Plus	42	--	0	--	0	(s)	--	28	1	14
Liquefied Petroleum Gases	38	63	5	--	0	6	--	36	10	55
Ethane/Ethylene	(s)	2	0	--	0	0	--	0	(s)	2
Propane/Propylene	11	35	2	--	0	1	--	(s)	7	40
Normal Butane/Butylene	21	24	2	--	0	5	--	24	2	15
Isobutane	7	3	1	--	0	(s)	--	12	0	-1
Other Liquids	**16**	**--**	**9**	**--**	**4**	**1**	**--**	**35**	**0**	**-7**
Other Hydrocarbons/Alcohol	16	--	0	--	0	(s)	--	16	0	0
Unfinished Oils	--	--	8	--	4	6	--	16	0	-10
Motor Gasoline Blend. Comp.	--	--	1	--	0	-5	--	3	0	3
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	**--**	**2,769**	**65**	**--**	**102**	**-15**	**--**	**--**	**313**	**2,637**
Finished Motor Gasoline	--	1,181	22	--	61	-6	--	--	10	1,260
Leaded	--	263	(s)	--	18	-5	--	--	1	284
Unleaded	--	918	21	--	43	-1	--	--	9	976
Finished Aviation Gasoline	--	6	(s)	--	0	(s)	--	--	0	6
Jet Fuel	--	385	9	--	20	-2	--	--	7	410
Naphtha-Type	--	54	1	--	10	(s)	--	--	(s)	65
Kerosene-Type	--	331	9	--	10	-2	--	--	7	345
Kerosene	--	5	0	--	0	(s)	--	--	(s)	5
Distillate Fuel Oil	--	430	5	--	21	-3	--	--	34	425
Residual Fuel Oil	--	380	26	--	0	-4	--	--	155	255
Petrochemical Feedstocks[e]	--	16	1	--	(s)	(s)	--	--	8	9
Special Naphthas	--	3	(s)	--	0	(s)	--	--	2	2
Lubricants	--	20	(s)	--	(s)	(s)	--	--	3	16
Waxes	--	3	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	131	(s)	--	0	1	--	--	92	38
Asphalt and Road Oil	--	65	(s)	--	0	-1	--	--	1	66
Still Gas	--	141	0	--	0	0	--	--	0	141
Miscellaneous Products	--	3	0	--	0	(s)	--	--	(s)	3
Total	**2,978**	**2,832**	**340**	**4**	**-295**	**-16**	**(s)**	**2,700**	**449**	**2,727**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	August 1989		January-August 1989	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 1,054**	**E 34**	**E 8,223**	**E 34**
Florida	608	20	4,846	20
New York	E 44	E 1	E 344	E 1
Pennsylvania	E 230	E 7	E 1,690	E 7
Virginia	E 2	E (s)	E 13	E (s)
West Virginia	191	6	1,458	6
Adjustment[a]	-21	-1	-128	-1
PAD District II	**E 23,811**	**E 768**	**E 188,741**	**E 777**
Illinois	1,700	55	14,421	59
Indiana	287	9	E 2,284	E 9
Kansas	4,544	147	E 36,255	E 149
Kentucky	458	15	3,761	15
Michigan	E 1,833	E 59	E 14,361	E 59
Missouri	10	(s)	84	(s)
Nebraska	522	17	E 4,245	E 17
North Dakota	3,095	100	E 24,358	E 100
Ohio	E 932	E 30	E 7,111	E 29
Oklahoma	9,679	312	78,050	321
South Dakota	135	4	1,064	4
Tennessee	42	1	E 379	E 2
Adjustment[a]	574	19	2,368	10
PAD District III	**E 105,313**	**E 3,397**	**E 847,487**	**E 3,488**
Alabama	1,754	57	13,683	56
Arkansas	E 975	E 31	E 7,994	E 33
Louisiana[b]	E 12,857	E 415	E 102,971	E 424
Mississippi	2,380	77	18,335	75
New Mexico	5,684	183	45,687	188
Texas[b]	57,741	1,863	461,670	1,900
Federal Offshore PAD District III	22,441	724	E 189,337	E 779
Adjustment[a]	1,481	48	7,810	32
PAD District IV	**16,064**	**518**	**E 126,911**	**E 522**
Colorado	2,444	79	E 20,505	E 84
Montana	1,760	57	13,918	57
Utah	2,417	78	18,865	78
Wyoming	8,705	281	72,106	297
Adjustment[a]	738	24	1,517	6
PAD District V	**89,029**	**2,872**	**700,290**	**2,882**
Alaska[b]	57,889	1,867	452,969	1,864
South Alaska	1,306	42	10,430	43
North Slope	56,656	1,828	442,611	1,821
Adjustment for Alaska[a]	-73	-2	-72	(s)
Arizona	13	(s)	89	(s)
California[b]	28,064	905	221,552	912
Nevada	285	9	2,102	9
Federal Offshore PAD District V	2,841	92	21,265	88
Adjustment excluding Alaska[a]	-63	-2	2,313	10
U.S. Total[b]	**E 235,271**	**E 7,589**	**E 1,871,652**	**E 7,702**

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 4,227; California: State - 2,118; Louisiana: State - E1,940; Texas: State - 126; U.S. Total, including Federal offshore - E33,693.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, October 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
	Net Production						
Natural Gas Liquids	**249**	**701**	**950**	**622**	**413**	**7,034**	**8,069**
Pentanes Plus	44	84	128	134	95	1,204	1,433
Liquefied Petroleum Gases	205	617	822	488	318	5,830	6,636
Ethane	56	188	244	113	0	1,722	1,835
Propane	82	298	380	208	193	2,677	3,078
Normal Butane	51	94	145	82	120	903	1,105
Isobutane	16	37	53	85	5	528	618
	Stocks						
Natural Gas Liquids	**244**	**45**	**289**	**265**	**68**	**1,755**	**2,088**
Pentanes Plus	43	12	55	22	15	203	240
Liquefied Petroleum Gases	201	33	234	243	53	1,552	1,848
Ethane	0	0	0	17	0	410	427
Propane	135	26	161	180	41	661	882
Normal Butane	62	3	65	28	12	373	413
Isobutane	4	4	8	18	0	108	126

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
	Net Production								
Natural Gas Liquids	**17,604**	**2,715**	**6,059**	**537**	**3,757**	**30,672**	**3,632**	**2,452**	**45,775**
Pentanes Plus	3,449	652	1,113	159	527	5,900	745	1,292	9,498
Liquefied Petroleum Gases	14,155	2,063	4,946	378	3,230	24,772	2,887	1,160	36,277
Ethane	5,737	931	2,116	49	1,444	10,277	772	1	13,129
Propane	5,278	689	1,669	174	1,144	8,954	1,323	301	14,036
Normal Butane	2,278	-1,453	581	115	424	1,945	552	654	4,401
Isobutane	862	1,896	580	40	218	3,596	240	204	4,711
	Stocks								
Natural Gas Liquids	**1,189**	**3,361**	**1,164**	**126**	**105**	**5,945**	**251**	**52**	**8,625**
Pentanes Plus	437	495	258	28	19	1,237	98	12	1,642
Liquefied Petroleum Gases	752	2,866	906	98	86	4,708	153	40	6,983
Ethane	92	1,015	4	24	5	1,141	3	0	1,571
Propane	329	725	381	40	45	1,520	102	25	2,690
Normal Butane	275	723	388	29	23	1,438	42	10	1,968
Isobutane	56	403	133	5	12	609	6	5	754

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1989
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**39,743**	**2,804**	**42,547**	**52,290**	**10,061**	**19,634**	**81,985**
Natural Gas Liquids	**110**	**1**	**111**	**2,499**	**373**	**1,393**	**4,265**
Pentanes Plus	0	0	0	548	34	567	1,149
Liquefied Petroleum Gases	110	1	111	1,951	339	826	3,116
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	4	0	0	4
Normal Butane	59	1	60	1,159	273	460	1,892
Isobutane	51	0	51	788	66	366	1,220
Other Liquids	**5,256**	**398**	**5,654**	**1,655**	**86**	**177**	**1,918**
Other Hydrocarbons/Alcohol	103	0	103	184	2	63	249
Unfinished Oils (net)	3,994	430	4,424	-822	-61	126	-757
Motor Gasoline Blend. Comp. (net)	1,159	-32	1,127	2,267	145	-6	2,406
Aviation Gasoline Blend. Comp. (net)	0	0	0	26	0	-6	20
Total Input to Refineries	**45,109**	**3,203**	**48,312**	**56,444**	**10,520**	**21,204**	**88,168**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,277	90	1,368	1,693	326	637	2,656
Operable Capacity (daily average)	1,339	124	1,464	2,193	342	735	3,270
Operable Utilization Rate (percent)[a,b]	95.4	72.7	93.5	77.2	95.4	86.7	81.2
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	513	16	529	625	116	202	943
Catalytic Hydrocracking	57	0	57	88	0	2	90
Delayed and Fluid Coking	76	0	76	132	58	51	241
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.31	0.70	1.27	0.96	1.86	0.57	0.98
API Gravity, Weighted Average (degrees)	30.84	37.86	31.31	34.25	30.90	36.75	34.44
Operable Capacity (daily average)	**1,339**	**124**	**1,464**	**2,193**	**342**	**735**	**3,270**
Operating	1,315	124	1,440	2,191	342	735	3,268
Idle	24	0	24	2	0	0	2
Alaskan Crude Oil Receipts	**0**	**0**	**0**	**784**	**0**	**156**	**940**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1989 (Continued)
(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**15,944**	**96,858**	**74,126**	**4,455**	**2,298**	**193,681**	**13,809**	**82,072**	**414,094**
Natural Gas Liquids	**1,700**	**3,945**	**3,933**	**262**	**216**	**10,056**	**738**	**2,238**	**17,408**
Pentanes Plus	902	1,584	763	185	162	3,596	197	943	5,885
Liquefied Petroleum Gases	798	2,361	3,170	77	54	6,460	541	1,295	11,523
Ethane	0	0	168	0	0	168	0	0	168
Propane	1	109	149	0	0	259	6	2	271
Normal Butane	435	1,129	1,615	27	3	3,209	437	883	6,481
Isobutane	362	1,123	1,238	50	51	2,824	98	410	4,603
Other Liquids	**-355**	**5,521**	**2,669**	**46**	**89**	**7,970**	**252**	**1,038**	**16,832**
Other Hydrocarbons/Alcohol	0	577	378	0	28	983	67	356	1,758
Unfinished Oils (net)	-381	5,237	3,244	9	2	8,111	-29	846	12,595
Motor Gasoline Blend. Comp. (net)	26	-294	-950	37	59	-1,122	214	-169	2,456
Aviation Gasoline Blend. Comp. (net)	0	1	-3	0	0	-2	0	5	23
Total Input to Refineries	**17,289**	**106,324**	**80,728**	**4,763**	**2,603**	**211,707**	**14,799**	**85,348**	**448,334**
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	519	3,151	2,431	143	74	6,318	449	2,740	13,531
Operable Capacity (daily average)	571	3,528	2,950	255	76	7,379	554	3,056	15,722
Operable Utilization Rate (percent)[a,b]	90.9	89.3	82.4	56.2	98.1	85.6	81.0	89.7	86.1
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	170	1,123	768	17	26	2,103	150	652	4,377
Catalytic Hydrocracking	19	186	180	0	0	385	8	372	913
Delayed and Fluid Coking	9	179	342	2	0	532	17	460	1,327
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.71	1.01	1.25	1.41	0.82	1.08	0.86	1.11	1.08
API Gravity, Weighted Average (degrees)	38.50	33.57	31.81	34.08	39.41	33.37	36.22	26.22	32.03
Operable Capacity (daily average)	**571**	**3,528**	**2,950**	**255**	**76**	**7,379**	**554**	**3,056**	**15,722**
Operating	547	3,343	2,479	214	76	6,658	554	3,027	14,946
Idle	24	185	471	41	0	721	0	29	775
Alaskan Crude Oil Receipts	**0**	**4,823**	**1,534**	**71**	**0**	**6,428**	**0**	**43,180**	**50,548**

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[a] Represents gross input divided by operable capacity.
[b] See Table H2 in the Highlights Section for additional information concerning utilization rates.
(s) = Less than 500 barrels.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, October 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,444	-31	1,413	1,825	233	479	2,537
Ethane/Ethylene	185	0	185	24	0	0	24
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,228	30	1,258	1,715	246	518	2,479
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	-80	-57	-137	50	11	-39	22
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	111	-4	107	36	-24	0	12
Finished Motor Gasoline	20,419	1,177	21,596	31,535	5,647	11,035	48,217
Leaded	259	97	356	585	587	2,423	3,595
Unleaded	20,160	1,080	21,240	30,950	5,060	8,612	44,622
Finished Aviation Gasoline	22	0	22	99	43	11	153
Jet Fuel	3,033	198	3,231	2,542	674	1,737	4,953
Naphtha-Type	495	198	693	258	27	303	588
Kerosene-Type	2,538	0	2,538	2,284	647	1,434	4,365
Kerosene	58	62	120	350	55	-69	336
Distillate Fuel Oil	11,017	992	12,009	12,351	2,658	5,146	20,155
Residual Fuel Oil	3,689	60	3,749	1,650	323	142	2,115
Less than 0.31 percent sulfur	259	5	264	48	0	0	48
0.31 to 1.00 percent sulfur	2,244	0	2,244	360	0	60	420
Greater than 1.00 percent sulfur	1,186	55	1,241	1,242	323	82	1,647
Naphtha for Petrochemical Feedstock Use	288	0	288	392	0	-5	387
Other Oils for Petrochemical Feedstock Use	11	0	11	635	0	64	699
Special Naphthas	7	26	33	173	0	221	394
Lubricants	398	218	616	224	0	307	531
Naphthenic	151	0	151	0	0	0	0
Paraffinic	247	218	465	224	0	307	531
Waxes	0	63	63	25	0	31	56
Petroleum Coke	1,353	25	1,378	1,975	637	627	3,239
Marketable	446	0	446	1,110	469	400	1,979
Catalyst	907	25	932	865	168	227	1,260
Asphalt and Road Oil	3,364	255	3,619	2,368	386	1,090	3,844
Still Gas	1,853	134	1,987	2,383	444	739	3,566
Miscellaneous Products	326	41	367	237	34	29	300
Fuel Use	14	0	14	0	0	0	0
Nonfuel Use	312	41	353	237	34	29	300
Total	**47,282**	**3,220**	**50,502**	**58,764**	**11,134**	**21,584**	**91,482**
Processing Gain(-) or Loss(+)[a]	-2,173	-17	-2,190	-2,320	-614	-380	-3,314

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, October 1989 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	323	5,185	4,251	49	78	9,886	221	1,680	15,737
Ethane/Ethylene	-44	305	8	0	0	269	5	36	519
Ethane	W	W	W	W	W	W	W	W	288
Ethylene	W	W	W	W	W	W	W	W	231
Propane/Propylene	380	3,893	2,158	45	66	6,542	206	1,059	11,544
Propane	W	W	W	W	W	W	W	W	8,658
Propylene	W	W	W	W	W	W	W	W	2,886
Normal Butane/Butylene	-195	852	2,070	4	10	2,741	-16	613	3,223
Normal Butane	W	W	W	W	W	W	W	W	3,013
Butylene	W	W	W	W	W	W	W	W	210
Isobutane	182	135	15	0	2	334	26	-28	451
Finished Motor Gasoline	9,110	48,928	36,688	1,335	1,460	97,521	7,450	37,404	212,188
Leaded	1,469	1,759	1,096	56	428	4,808	2,310	8,054	19,123
Unleaded	7,641	47,169	35,592	1,279	1,032	92,713	5,140	29,350	193,065
Finished Aviation Gasoline	103	233	182	0	0	518	23	166	882
Jet Fuel	2,037	11,280	10,163	307	370	24,157	1,318	12,907	46,566
Naphtha-Type	881	982	491	172	330	2,856	519	1,622	6,278
Kerosene-Type	1,156	10,298	9,672	135	40	21,301	799	11,285	40,288
Kerosene	35	1,053	611	34	0	1,733	-23	135	2,301
Distillate Fuel Oil	3,796	18,734	16,160	1,218	541	40,449	3,948	13,530	90,091
Residual Fuel Oil	390	6,983	4,988	294	17	12,672	230	12,280	31,046
Less than 0.31 percent sulfur	175	0	1,350	74	8	1,607	21	856	2,796
0.31 to 1.00 percent sulfur	132	1,460	604	169	9	2,374	17	1,057	6,112
Greater than 1.00 percent sulfur	83	5,523	3,034	51	0	8,691	192	10,367	22,138
Naphtha for Petrochemical Feedstock Use	113	1,502	223	20	3	1,861	-17	201	2,720
Other Oils for Petrochemical Feedstock Use	149	4,102	1,463	0	0	5,714	10	-378	6,056
Special Naphthas	81	877	82	153	0	1,193	3	68	1,691
Lubricants	26	2,066	317	330	0	2,739	13	461	4,360
Naphthenic	26	408	0	240	0	674	0	300	1,125
Paraffinic	0	1,658	317	90	0	2,065	13	161	3,235
Waxes	16	142	32	52	0	242	-5	84	440
Petroleum Coke	333	3,164	3,554	42	18	7,111	315	4,150	16,193
Marketable	51	1,506	2,691	23	0	4,271	127	3,153	9,976
Catalyst	282	1,658	863	19	18	2,840	188	997	6,217
Asphalt and Road Oil	457	928	1,507	797	101	3,790	983	2,467	14,703
Still Gas	713	4,865	3,467	127	85	9,257	570	4,317	19,697
Miscellaneous Products	52	738	537	0	0	1,327	68	113	2,175
Fuel Use	1	0	40	0	0	41	8	0	63
Nonfuel Use	51	738	497	0	0	1,286	60	113	2,112
Total	**17,734**	**110,780**	**84,225**	**4,758**	**2,673**	**220,170**	**15,107**	**89,585**	**466,846**
Processing Gain(-) or Loss(+)[a]	-445	-4,456	-3,497	5	-70	-8,463	-308	-4,237	-18,512

[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1989
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**12,534**	**879**	**13,413**	**8,887**	**2,053**	**2,671**	**13,611**
Petroleum Products	**47,714**	**2,724**	**50,438**	**37,791**	**7,531**	**16,322**	**61,644**
Pentanes Plus	14	0	14	93	39	294	426
Liquefied Petroleum Gases	1,426	10	1,436	2,438	130	543	3,111
Ethane/Ethylene	18	0	18	2	0	0	2
Propane/Propylene	1,211	4	1,215	1,372	36	149	1,557
Normal Butane/Butylene	154	4	158	802	49	304	1,155
Isobutane	43	2	45	262	45	90	397
Other Hydrocarbons and Alcohol	160	0	160	83	3	15	101
Unfinished Oils	14,119	734	14,853	13,625	579	5,134	19,338
Naphthas and Lighter	4,430	214	4,644	3,831	179	1,561	5,571
Kerosene and Light Gas Oils	2,779	110	2,889	1,905	71	231	2,207
Heavy Gas Oils	5,700	303	6,003	4,232	329	2,326	6,887
Residuum	1,210	107	1,317	3,657	0	1,016	4,673
Motor Gasoline Blending Components	4,660	104	4,764	4,808	763	2,348	7,919
Aviation Gasoline Blending Components	0	0	0	48	0	13	61
Finished Motor Gasoline	9,804	399	10,203	4,983	1,450	2,805	9,238
Leaded	59	35	94	253	223	766	1,242
Unleaded	9,745	364	10,109	4,730	1,227	2,039	7,996
Finished Aviation Gasoline	23	0	23	76	14	17	107
Jet Fuel	2,619	94	2,713	1,484	306	786	2,576
Naphtha-Type	210	88	298	314	43	178	535
Kerosene-Type	2,409	6	2,415	1,170	263	608	2,041
Kerosene	178	68	246	345	21	293	659
Distillate Fuel Oil	7,451	459	7,910	4,525	1,308	2,405	8,238
Residual Fuel Oil	2,574	95	2,669	1,819	231	95	2,145
Less than 0.31 percent sulfur	265	68	333	33	0	0	33
0.31 to 1.00 percent sulfur	1,685	0	1,685	378	0	38	416
Greater than 1.00 percent sulfur	624	27	651	1,408	231	57	1,696
Naphtha for Petrochemical Feedstock Use	367	0	367	305	0	55	360
Other Oils for Petrochemical Feedstock Use	7	0	7	0	0	0	0
Special Naphthas	431	28	459	115	0	141	256
Lubricants	305	529	834	810	0	317	1,127
Waxes	0	46	46	71	0	22	93
Petroleum Coke (Marketable)	961	0	961	255	2,218	269	2,742
Asphalt and Road Oil	2,307	116	2,423	1,793	463	759	3,015
Miscellaneous Products	308	42	350	115	6	11	132
Total Stocks, All Oils	**60,248**	**3,603**	**63,851**	**46,678**	**9,584**	**18,993**	**75,255**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, October 1989 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**1,336**	**25,585**	**17,386**	**1,219**	**242**	**45,768**	**1,978**	**23,929**	**98,699**
Petroleum Products	**12,547**	**81,231**	**49,505**	**4,877**	**1,218**	**149,378**	**10,229**	**62,383**	**334,072**
Pentanes Plus	292	277	113	12	32	726	2	22	1,190
Liquefied Petroleum Gases	3,048	4,809	3,891	26	95	11,869	446	1,459	18,321
Ethane/Ethylene	108	1,291	0	0	0	1,399	2	0	1,421
Propane/Propylene	1,511	1,995	1,031	7	8	4,552	160	98	7,582
Normal Butane/Butylene	1,021	841	2,440	8	81	4,391	174	1,115	6,993
Isobutane	408	682	420	11	6	1,527	110	246	2,325
Other Hydrocarbons and Alcohol	0	211	105	0	7	323	113	33	730
Unfinished Oils	3,346	29,118	17,368	837	139	50,808	2,426	24,810	112,235
Naphthas and Lighter	1,075	7,787	4,138	281	42	13,323	632	4,560	28,730
Kerosene and Light Gas Oils	548	6,898	2,318	94	1	9,859	251	3,067	18,273
Heavy Gas Oils	1,143	10,016	7,223	433	96	18,911	1,170	12,992	45,963
Residuum	580	4,417	3,689	29	0	8,715	373	4,191	19,269
Motor Gasoline Blending Components	1,386	7,315	6,367	192	214	15,474	1,837	7,354	37,348
Aviation Gasoline Blending Components	0	0	41	0	0	41	0	1	103
Finished Motor Gasoline	1,752	11,022	4,463	729	199	18,165	1,766	8,247	47,619
Leaded	365	780	356	35	80	1,616	736	1,958	5,646
Unleaded	1,387	10,242	4,107	694	119	16,549	1,030	6,289	41,973
Finished Aviation Gasoline	118	385	174	0	0	677	46	189	1,042
Jet Fuel	659	4,403	3,642	219	178	9,101	656	4,627	19,673
Naphtha-Type	241	323	540	168	116	1,388	285	783	3,289
Kerosene-Type	418	4,080	3,102	51	62	7,713	371	3,844	16,384
Kerosene	61	558	419	75	0	1,113	42	93	2,153
Distillate Fuel Oil	823	8,571	4,771	772	89	15,026	1,316	5,060	37,550
Residual Fuel Oil	341	4,199	3,166	299	33	8,038	477	5,423	18,752
Less than 0.31 percent sulfur	58	0	1,425	3	25	1,511	38	672	2,587
0.31 to 1.00 percent sulfur	99	732	154	220	8	1,213	225	685	4,224
Greater than 1.00 percent sulfur	184	3,467	1,587	76	0	5,314	214	4,066	11,941
Naphtha for Petrochemical Feedstock Use	44	798	305	16	13	1,176	31	178	2,112
Other Oils for Petrochemical Feedstock Use	104	1,374	312	0	0	1,790	1	176	1,974
Special Naphthas	76	1,439	37	153	0	1,705	4	92	2,516
Lubricants	18	4,214	1,241	467	0	5,940	189	751	8,841
Waxes	8	263	176	26	0	473	43	221	876
Petroleum Coke (Marketable)	13	833	1,843	284	0	2,973	1	2,002	8,679
Asphalt and Road Oil	448	1,103	858	770	219	3,398	825	1,546	11,207
Miscellaneous Products	10	339	213	0	0	562	8	99	1,151
Total Stocks, All Oils	**13,883**	**106,816**	**66,891**	**6,096**	**1,460**	**195,146**	**12,207**	**86,312**	**432,771**

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] October 1989

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	3.3	-1.0	3.0	3.5	2.3	2.4	3.1
Finished Motor Gasoline[b]	43.5	37.4	43.1	51.7	51.3	48.5	50.8
Finished Aviation Gasoline[c]	0.1	0.0	0.0	0.1	0.4	0.1	0.2
Naphtha-Type Jet Fuel	1.1	6.1	1.5	0.5	0.3	1.5	0.7
Kerosene-Type Jet Fuel	5.8	0.0	5.4	4.4	6.5	7.3	5.4
Kerosene	0.1	1.9	0.3	0.7	0.5	-0.3	0.4
Distillate Fuel Oil	25.2	30.7	25.6	24.0	26.6	26.0	24.8
Residual Fuel Oil	8.4	1.9	8.0	3.2	3.2	0.7	2.6
Naphtha for Petrochemical Feedstock Use	0.7	0.0	0.6	0.8	0.0	0.0	0.5
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.2	0.0	0.3	0.9
Special Naphthas	0.0	0.8	0.1	0.3	0.0	1.1	0.5
Lubricants	0.9	6.7	1.3	0.4	0.0	1.6	0.7
Waxes	0.0	1.9	0.1	0.0	0.0	0.2	0.1
Petroleum Coke	3.1	0.8	2.9	3.8	6.4	3.2	4.0
Asphalt and Road Oil	7.7	7.9	7.7	4.6	3.9	5.5	4.7
Still Gas	4.2	4.1	4.2	4.6	4.4	3.7	4.4
Miscellaneous Products	0.7	1.3	0.8	0.5	0.3	0.1	0.4
Processing Gain(-) or Loss(+)[d]	-5.0	-0.5	-4.7	-4.5	-6.1	-1.9	-4.1

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	2.1	5.1	5.5	1.1	3.4	4.9	1.6	2.0	3.7
Finished Motor Gasoline[b]	47.4	43.8	43.1	23.2	50.3	43.4	46.7	42.2	44.7
Finished Aviation Gasoline[c]	0.7	0.2	0.2	0.0	0.0	0.3	0.2	0.2	0.2
Naphtha-Type Jet Fuel	5.7	1.0	0.6	3.9	14.3	1.4	3.8	2.0	1.5
Kerosene-Type Jet Fuel	7.4	10.1	12.5	3.0	1.7	10.6	5.8	13.6	9.4
Kerosene	0.2	1.0	0.8	0.8	0.0	0.9	-0.2	0.2	0.5
Distillate Fuel Oil	24.4	18.3	20.9	27.3	23.5	20.0	28.7	16.3	21.1
Residual Fuel Oil	2.5	6.8	6.4	6.6	0.7	6.3	1.7	14.8	7.3
Naphtha for Petrochemical Feedstock Use	0.7	1.5	0.3	0.4	0.1	0.9	-0.1	0.2	0.6
Other Oils for Petrochemical Feedstock Use	1.0	4.0	1.9	0.0	0.0	2.8	0.1	-0.5	1.4
Special Naphthas	0.5	0.9	0.1	3.4	0.0	0.6	0.0	0.1	0.4
Lubricants	0.2	2.0	0.4	7.4	0.0	1.4	0.1	0.6	1.0
Waxes	0.1	0.1	0.0	1.2	0.0	0.1	0.0	0.1	0.1
Petroleum Coke	2.1	3.1	4.6	0.9	0.8	3.5	2.3	5.0	3.8
Asphalt and Road Oil	2.9	0.9	1.9	17.9	4.4	1.9	7.1	3.0	3.4
Still Gas	4.6	4.8	4.5	2.8	3.7	4.6	4.1	5.2	4.6
Miscellaneous Products	0.3	0.7	0.7	0.0	0.0	0.7	0.5	0.1	0.5
Processing Gain(-) or Loss(+)[d]	-2.9	-4.4	-4.5	0.1	-3.0	-4.2	-2.2	-5.1	-4.3

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, October 1989
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**2,839**	**4,650**	**7,804**	**15,293**
Connecticut	0	326	0	326
Florida	171	434	410	1,015
Georgia	0	0	181	181
Maine	0	0	596	596
Maryland	0	330	585	915
Massachusetts	0	343	880	1,223
New Jersey	957	1,979	1,253	4,189
New York	1,511	1,238	2,767	5,516
North Carolina	0	0	209	209
Pennsylvania	200	0	353	553
Vermont	0	0	3	3
Virginia	0	0	567	567
PAD District II	**31**	**1**	**42**	**74**
Michigan	31	0	0	31
Minnesota	0	0	2	2
North Dakota	0	1	40	41
PAD District III	**255**	**0**	**41**	**296**
Alabama	0	0	41	41
Texas	255	0	0	255
PAD District V	**1,538**	**146**	**482**	**2,166**
California	1,538	146	242	1,926
Hawaii	0	0	240	240
U.S. Total	**4,663**	**4,797**	**8,369**	**17,829**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, October 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**44,005**	**32,369**	**104,327**	**1,732**	**9,077**	**191,510**	**6,178**
Natural Gas Liquids	**460**	**2,866**	**1,788**	**292**	**173**	**5,579**	**180**
Pentanes Plus	0	30	0	62	0	92	3
Liquefied Petroleum Gases	460	2,836	1,788	230	173	5,487	177
Ethane/Ethylene	0	0	158	0	0	158	5
Propane/Propylene	271	2,263	447	115	67	3,163	102
Normal Butane/Butylene	185	471	619	114	90	1,479	48
Isobutane	4	102	564	1	16	687	22
Other Liquids	**5,395**	**0**	**5,945**	**0**	**1,167**	**12,507**	**403**
Unfinished Oils[a]	3,876	0	5,695	0	1,167	10,738	346
Naphthas and Lighter	542	0	1,250	0	0	1,792	58
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	2,491	0	921	0	977	4,389	142
Residuum	843	0	3,524	0	190	4,557	147
Motor Gasoline Blending Components	1,519	0	250	0	0	1,769	57
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**36,063**	**914**	**6,306**	**97**	**2,484**	**45,864**	**1,479**
Finished Motor Gasoline	10,666	235	291	32	77	11,301	365
Leaded	0	0	0	2	2	4	(s)
Unleaded	10,666	235	291	30	75	11,297	364
Finished Aviation Gasoline	2	0	9	0	2	13	(s)
Jet Fuel	1,128	92	813	0	127	2,160	70
Naphtha-Type	0	92	0	0	4	96	3
Kerosene-Type	1,128	0	813	0	123	2,064	67
Bonded Aircraft Fuel	999	0	585	0	0	1,584	51
Other	129	0	228	0	123	480	15
Kerosene	184	0	230	0	0	414	13
Distillate Fuel Oil	7,371	386	0	65	50	7,872	254
Bonded Ship Bunkers	0	0	0	2	0	2	(s)
Other	7,371	386	0	63	50	7,870	254
Residual Fuel Oil	15,293	74	296	0	2,166	17,829	575
Bonded Ship Bunkers	136	0	0	0	0	136	4
Other	15,157	74	296	0	2,166	17,693	571
Naphtha for Petrochemical Feedstock Use	117	20	2,897	0	0	3,034	98
Other Oils for Petrochemical Feedstock Use	0	0	1,576	0	0	1,576	51
Special Naphthas	4	23	123	0	11	161	5
Lubricants	224	28	21	0	6	279	9
Waxes	56	8	0	0	1	65	2
Petroleum Coke	0	0	0	0	43	43	1
Asphalt and Road Oil	953	44	50	0	1	1,048	34
Miscellaneous Products	65	4	0	0	0	69	2
Total	**85,923**	**36,149**	**118,366**	**2,121**	**12,901**	**255,460**	**8,241**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-October 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**360,656**	**316,136**	**988,138**	**20,987**	**79,561**	**1,765,478**	5,807
Natural Gas Liquids	**8,916**	**27,367**	**15,177**	**2,722**	**1,544**	**55,726**	183
Pentanes Plus	1,170	360	2	610	0	2,142	7
Liquefied Petroleum Gases	7,746	27,007	15,175	2,112	1,544	53,584	176
Ethane/Ethylene	0	1,260	1,147	0	0	2,407	8
Propane/Propylene	6,181	20,226	4,121	1,250	694	32,472	107
Normal Butane/Butylene	1,523	4,630	8,315	839	511	15,818	52
Isobutane	42	891	1,592	23	339	2,887	9
Other Liquids	**50,366**	**0**	**73,247**	**0**	**2,702**	**126,315**	416
Unfinished Oils[a]	38,043	0	68,905	0	2,370	109,318	360
Naphthas and Lighter	3,477	0	17,560	0	202	21,239	70
Kerosene and Light Gas Oils	710	0	0	0	0	710	2
Heavy Gas Oils	28,466	0	12,850	0	1,747	43,063	142
Residuum	5,390	0	38,495	0	421	44,306	146
Motor Gasoline Blending Components	12,323	0	4,342	0	332	16,997	56
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**396,087**	**7,390**	**58,546**	**1,118**	**19,700**	**482,841**	1,588
Finished Motor Gasoline	101,895	1,297	1,408	442	6,551	111,593	367
Leaded	784	28	206	31	53	1,102	4
Unleaded	101,111	1,269	1,202	411	6,498	110,491	363
Finished Aviation Gasoline	13	0	36	0	126	175	1
Jet Fuel	18,692	887	8,642	0	2,880	31,101	102
Naphtha-Type	0	887	0	0	272	1,159	4
Kerosene-Type	18,692	0	8,642	0	2,608	29,942	98
Bonded Aircraft Fuel	8,890	0	7,623	0	859	17,372	57
Other	9,802	0	1,019	0	1,749	12,570	41
Kerosene	1,268	0	567	0	0	1,835	6
Distillate Fuel Oil	85,688	2,206	1,142	660	1,527	91,223	300
Bonded Ship Bunkers	491	0	0	12	0	503	2
Other	85,197	2,206	1,142	648	1,527	90,720	298
Residual Fuel Oil	173,423	1,401	4,766	6	7,932	187,528	617
Bonded Ship Bunkers	775	0	633	0	0	1,408	5
Other	172,648	1,401	4,133	6	7,932	186,120	612
Naphtha for Petrochemical Feedstock Use	1,846	298	22,020	0	287	24,451	80
Other Oils for Petrochemical Feedstock Use	145	0	18,073	0	0	18,218	60
Special Naphthas	92	643	1,278	1	122	2,136	7
Lubricants	3,031	261	43	0	96	3,431	11
Waxes	335	122	11	9	28	505	2
Petroleum Coke	22	0	152	0	127	301	1
Asphalt and Road Oil	9,102	224	336	0	24	9,686	32
Miscellaneous Products	535	51	72	0	0	658	2
Total	**816,025**	**350,893**	**1,135,108**	**24,827**	**103,507**	**2,430,360**	7,995

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] October 1989

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**56,392**	**592**	**1,629**	**0**	**1,699**	**292**	**138**	**876**	**148**	**295**	**1,319**
Algeria	2,286	592	139	0	0	0	0	876	148	0	1,024
Iraq	15,334	0	447	0	0	0	0	0	0	0	0
Kuwait	5,910	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	32,442	0	1,043	0	1,699	292	138	0	0	295	295
United Arab Emirates	420	0	0	0	0	0	0	0	0	0	0
Other OPEC	**48,701**	**85**	**1,116**	**250**	**3,315**	**1,037**	**3,712**	**1,356**	**164**	**2,503**	**4,023**
Ecuador	3,254	0	0	0	0	0	0	0	0	361	361
Gabon	1,552	0	0	0	0	0	0	0	0	0	0
Indonesia	4,027	0	190	0	0	0	0	953	0	0	953
Nigeria	21,524	0	0	0	0	0	0	403	164	0	567
Venezuela	18,344	85	926	250	3,315	1,037	3,712	0	0	2,142	2,142
Non OPEC	**86,417**	**4,810**	**7,993**	**1,519**	**6,287**	**831**	**4,022**	**2,431**	**4,485**	**5,571**	**12,487**
Angola	10,386	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	127	0	507	0	0	0	0	0	0
Australia	1,651	0	0	0	0	0	0	0	146	0	146
Bahama Islands	0	0	0	0	0	0	0	253	330	769	1,352
Belgium	0	0	494	0	0	0	0	0	322	0	322
Brazil	0	0	0	0	1,695	0	0	356	0	0	356
Brunei	668	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	219	0	0	0	0	0	0	0	0
Cameroon	4,002	0	0	0	0	0	0	0	338	0	338
Canada	18,011	3,707	183	0	908	102	1,836	31	224	376	631
China, People's Republic of	2,590	0	0	0	0	0	0	0	0	0	0
Colombia	3,603	0	0	0	0	0	0	316	0	624	940
Congo	1,337	0	0	0	0	0	0	167	0	0	167
Egypt	587	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	548	0	0	0	0	0	0
Germany, FR (W)	0	30	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	310	0	0	310
Guatemala	220	0	0	0	0	0	0	0	0	0	0
India	180	0	267	0	0	0	0	0	0	0	0
Ireland	0	0	220	0	0	0	0	0	0	0	0
Italy	0	0	1,748	0	285	0	0	255	0	0	255
Japan	0	6	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	190	0	0	0	0	0	0	0	0
Malaysia	879	0	0	0	0	0	0	0	0	0	0
Mexico	23,545	1,058	0	0	0	305	640	0	0	268	268
Netherlands	0	0	355	3	397	0	0	0	330	0	330
Netherlands Antilles	0	0	0	0	491	81	0	0	0	618	618
Norway	4,424	0	264	0	272	0	0	0	171	0	171
Oman	962	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	158	195	332	685
Puerto Rico	0	0	317	253	0	0	0	0	0	0	0
Romania	0	0	0	1,115	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	117	0	585	0	262	847
Spain	0	0	222	0	948	0	0	0	0	0	0
Sweden	0	0	297	0	0	0	0	0	0	0	0
Syria	1,026	0	0	0	0	0	0	0	0	0	0
Thailand	201	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,205	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	357	0	0	0	0	0	0	0	0
United Kingdom	7,249	0	187	0	236	0	0	0	1,650	180	1,830
U.S.S.R.	0	0	1,677	0	0	0	0	0	0	377	377
Virgin Islands	0	0	729	148	0	226	1,546	0	779	1,765	2,544
Zaire	657	0	0	0	0	0	0	0	0	0	0
Other	2,034	9	140	0	0	0	0	0	0	0	0
Total	**191,510**	**5,487**	**10,738**	**1,769**	**11,301**	**2,160**	**7,872**	**4,663**	**4,797**	**8,369**	**17,829**

See footnotes at end of table.

able 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] October 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
ab OPEC	0	0	1,994	1,576	0	0	0	9,239	65,631	2,117
Algeria	0	0	1,994	1,576	0	0	0	5,325	7,611	246
Iraq	0	0	0	0	0	0	0	447	15,781	509
Kuwait	0	0	0	0	0	0	0	0	5,910	191
Saudi Arabia	0	0	0	0	0	0	0	3,467	35,909	1,158
United Arab Emirates	0	0	0	0	0	0	0	0	420	14
her OPEC	0	0	252	0	0	838	0	14,628	63,329	2,043
Ecuador	0	0	0	0	0	0	0	361	3,615	117
Gabon	0	0	0	0	0	0	0	0	1,552	50
Indonesia	0	0	0	0	0	0	0	1,143	5,170	167
Nigeria	0	0	0	0	0	0	0	567	22,091	713
Venezuela	0	0	252	0	0	838	0	12,557	30,901	997
on OPEC	414	161	788	0	279	210	282	40,083	126,500	4,081
Angola	0	0	0	0	0	0	0	0	10,386	335
Argentina	0	0	0	0	0	0	0	634	634	20
Australia	0	0	0	0	0	0	0	146	1,797	58
Bahama Islands	0	0	0	0	0	0	0	1,352	1,352	44
Belgium	0	0	0	0	0	0	0	816	816	26
Brazil	0	0	4	0	0	0	1	2,056	2,056	66
Brunei	0	0	0	0	0	0	0	0	668	22
Bulgaria	0	0	0	0	0	0	0	219	219	7
Cameroon	0	0	0	0	0	0	0	338	4,340	140
Canada	32	161	27	0	59	198	160	8,004	26,015	839
China, People's Republic of	0	0	0	0	21	0	30	51	2,641	85
Colombia	0	0	0	0	0	0	0	940	4,543	147
Congo	0	0	0	0	0	0	0	167	1,504	49
Egypt	0	0	0	0	0	0	2	2	589	19
France	0	0	35	0	0	0	0	583	583	19
Germany, FR (W)	0	0	0	0	0	0	7	37	37	1
Greece	0	0	0	0	0	0	0	310	310	10
Guatemala	0	0	0	0	0	0	0	0	220	7
India	0	0	294	0	0	0	0	561	741	24
Ireland	0	0	0	0	0	0	0	220	220	7
Italy	0	0	0	0	0	0	0	2,288	2,288	74
Japan	0	0	0	0	6	0	4	16	16	1
Korea, Republic of	0	0	0	0	0	0	0	190	190	6
Malaysia	0	0	0	0	0	0	0	0	879	28
Mexico	0	0	0	0	0	9	1	2,281	25,826	833
Netherlands	0	0	241	0	0	0	0	1,326	1,326	43
Netherlands Antilles	0	0	0	0	0	0	0	1,190	1,190	38
Norway	0	0	0	0	0	0	0	707	5,131	166
Oman	0	0	0	0	0	0	0	0	962	31
Peru	0	0	0	0	0	0	0	685	685	22
Puerto Rico	0	0	145	0	193	0	74	982	982	32
Romania	0	0	0	0	0	0	0	1,115	1,115	36
Singapore	0	0	0	0	0	0	0	964	964	31
Spain	0	0	0	0	0	0	0	1,170	1,170	38
Sweden	0	0	15	0	0	0	0	312	312	10
Syria	0	0	0	0	0	0	0	0	1,026	33
Thailand	0	0	0	0	0	0	0	0	201	6
Trinidad and Tobago	0	0	0	0	0	3	0	3	2,208	71
Turkey	0	0	0	0	0	0	0	357	357	12
United Kingdom	0	0	14	0	0	0	1	2,268	9,517	307
U.S.S.R.	0	0	0	0	0	0	0	2,054	2,054	66
Virgin Islands	382	0	0	0	0	0	0	5,575	5,575	180
Zaire	0	0	0	0	0	0	0	0	657	21
Other	0	0	13	0	0	0	2	164	2,198	71
otal	414	161	3,034	1,576	279	1,048	282	63,950	255,460	8,241

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**9,853**	**101**	**139**	**0**	**1,668**	**129**	**138**	**876**	**148**	**295**	**1,319**
Algeria	0	101	139	0	0	0	0	876	148	0	1,024
Iraq	2,546	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,307	0	0	0	1,668	129	138	0	0	295	295
Other OPEC	**18,429**	**85**	**236**	**0**	**3,055**	**918**	**3,712**	**403**	**164**	**2,261**	**2,828**
Ecuador	1,153	0	0	0	0	0	0	0	0	361	361
Gabon	815	0	0	0	0	0	0	0	0	0	0
Nigeria	13,021	0	0	0	0	0	0	403	164	0	567
Venezuela	3,440	85	236	0	3,055	918	3,712	0	0	1,900	1,900
Non OPEC	**15,723**	**274**	**3,501**	**1,519**	**5,943**	**81**	**3,521**	**1,560**	**4,338**	**5,248**	**11,146**
Angola	3,697	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	86	0	507	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	253	330	769	1,352
Belgium	0	0	168	0	0	0	0	0	322	0	322
Brazil	0	0	0	0	1,695	0	0	356	0	0	356
Bulgaria	0	0	219	0	0	0	0	0	0	0	0
Cameroon	1,568	0	0	0	0	0	0	0	338	0	338
Canada	1,922	274	1	0	564	0	1,335	0	223	334	557
China, People's Republic of	0	0	0	0	0	0	0	0	0	0	0
Colombia	431	0	0	0	0	0	0	316	0	624	940
Congo	0	0	0	0	0	0	0	167	0	0	167
Egypt	587	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	548	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	310	0	0	310
Ireland	0	0	220	0	0	0	0	0	0	0	0
Italy	0	0	1,139	0	285	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	3,804	0	0	0	0	0	640	0	0	227	227
Netherlands	0	0	0	3	397	0	0	0	330	0	330
Netherlands Antilles	0	0	0	0	491	81	0	0	0	618	618
Norway	2,913	0	264	0	272	0	0	0	171	0	171
Peru	0	0	0	0	0	0	0	158	195	332	685
Puerto Rico	0	0	317	253	0	0	0	0	0	0	0
Romania	0	0	0	1,115	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	0	0	22	22
Spain	0	0	222	0	948	0	0	0	0	0	0
Sweden	0	0	136	0	0	0	0	0	0	0	0
Syria	453	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	236	0	0	0	1,650	180	1,830
U.S.S.R.	0	0	0	0	0	0	0	0	0	377	377
Virgin Islands	0	0	729	148	0	0	1,546	0	779	1,765	2,544
Zaire	348	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**44,005**	**460**	**3,876**	**1,519**	**10,666**	**1,128**	**7,371**	**2,839**	**4,650**	**7,804**	**15,293**

See footnotes at end of table.

able 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
rab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,494**	**13,347**	431
Algeria	0	0	0	0	0	0	0	1,264	1,264	41
Iraq	0	0	0	0	0	0	0	0	2,546	82
Saudi Arabia	0	0	0	0	0	0	0	2,230	9,537	308
ther OPEC	**0**	**0**	**0**	**0**	**0**	**797**	**0**	**11,631**	**30,060**	970
Ecuador	0	0	0	0	0	0	0	361	1,514	49
Gabon	0	0	0	0	0	0	0	0	815	26
Nigeria	0	0	0	0	0	0	0	567	13,588	438
Venezuela	0	0	0	0	0	797	0	10,703	14,143	456
on OPEC	**184**	**4**	**117**	**0**	**224**	**156**	**123**	**26,793**	**42,516**	**1,371**
Angola	0	0	0	0	0	0	0	0	3,697	119
Argentina	0	0	0	0	0	0	0	593	593	19
Bahama Islands	0	0	0	0	0	0	0	1,352	1,352	44
Belgium	0	0	0	0	0	0	0	490	490	16
Brazil	0	0	0	0	0	0	1	2,052	2,052	66
Bulgaria	0	0	0	0	0	0	0	219	219	7
Cameroon	0	0	0	0	0	0	0	338	1,906	61
Canada	32	4	7	0	31	153	14	2,972	4,894	158
China, People's Republic of	0	0	0	0	0	0	30	30	30	1
Colombia	0	0	0	0	0	0	0	940	1,371	44
Congo	0	0	0	0	0	0	0	167	167	5
Egypt	0	0	0	0	0	0	2	2	589	19
France	0	0	0	0	0	0	0	548	548	18
Germany, FR (W)	0	0	0	0	0	0	4	4	4	(s)
Greece	0	0	0	0	0	0	0	310	310	10
Ireland	0	0	0	0	0	0	0	220	220	7
Italy	0	0	0	0	0	0	0	1,424	1,424	46
Japan	0	0	0	0	0	0	4	4	4	(s)
Mexico	0	0	0	0	0	0	0	867	4,671	151
Netherlands	0	0	0	0	0	0	0	730	730	24
Netherlands Antilles	0	0	0	0	0	0	0	1,190	1,190	38
Norway	0	0	0	0	0	0	0	707	3,620	117
Peru	0	0	0	0	0	0	0	685	685	22
Puerto Rico	0	0	110	0	193	0	65	938	938	30
Romania	0	0	0	0	0	0	0	1,115	1,115	36
Singapore	0	0	0	0	0	0	0	22	22	1
Spain	0	0	0	0	0	0	0	1,170	1,170	38
Sweden	0	0	0	0	0	0	0	136	136	4
Syria	0	0	0	0	0	0	0	0	453	15
Trinidad and Tobago	0	0	0	0	0	3	0	3	3	(s)
United Kingdom	0	0	0	0	0	0	1	2,067	2,067	67
U.S.S.R.	0	0	0	0	0	0	0	377	377	12
Virgin Islands	152	0	0	0	0	0	0	5,119	5,119	165
Zaire	0	0	0	0	0	0	0	0	348	11
Other	0	0	0	0	0	0	2	2	2	(s)
otal	**184**	**4**	**117**	**0**	**224**	**953**	**123**	**41,918**	**85,923**	**2,772**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**5,836**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	449	0	0	0	0	0	0	0	0	0	0
Iraq	1,010	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,377	0	0	0	0	0	0	0	0	0	0
Other OPEC	**6,594**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	776	0	0	0	0	0	0	0	0	0	0
Indonesia	549	0	0	0	0	0	0	0	0	0	0
Nigeria	2,361	0	0	0	0	0	0	0	0	0	0
Venezuela	2,908	0	0	0	0	0	0	0	0	0	0
Non OPEC	**19,939**	**2,836**	**0**	**0**	**235**	**92**	**386**	**31**	**1**	**42**	**74**
Cameroon	339	0	0	0	0	0	0	0	0	0	0
Canada	13,630	2,836	0	0	235	92	386	31	1	42	74
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	1,899	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	552	0	0	0	0	0	0	0	0	0	0
United Kingdom	1,412	0	0	0	0	0	0	0	0	0	0
Zaire	309	0	0	0	0	0	0	0	0	0	0
Other	1,798	0	0	0	0	0	0	0	0	0	0
Total	**32,369**	**2,836**	**0**	**0**	**235**	**92**	**386**	**31**	**1**	**42**	**74**

See footnotes at end of table.

able 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
rab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,836**	**188**
Algeria	0	0	0	0	0	0	0	0	449	14
Iraq	0	0	0	0	0	0	0	0	1,010	33
Saudi Arabia	0	0	0	0	0	0	0	0	4,377	141
ther OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,594**	**213**
Ecuador	0	0	0	0	0	0	0	0	776	25
Indonesia	0	0	0	0	0	0	0	0	549	18
Nigeria	0	0	0	0	0	0	0	0	2,361	76
Venezuela	0	0	0	0	0	0	0	0	2,908	94
on OPEC	**0**	**23**	**20**	**0**	**28**	**44**	**42**	**3,780**	**23,719**	**765**
Cameroon	0	0	0	0	0	0	0	0	339	11
Canada	0	23	20	0	28	44	39	3,777	17,407	562
Germany, FR (W)	0	0	0	0	0	0	3	3	3	(s)
Mexico	0	0	0	0	0	0	0	0	1,899	61
Trinidad and Tobago	0	0	0	0	0	0	0	0	552	18
United Kingdom	0	0	0	0	0	0	0	0	1,412	46
Zaire	0	0	0	0	0	0	0	0	309	10
Other	0	0	0	0	0	0	0	0	1,798	58
otal	**0**	**23**	**20**	**0**	**28**	**44**	**42**	**3,780**	**36,149**	**1,166**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**40,703**	**491**	**1,490**	**0**	**31**	**163**	**0**	**0**	**0**	**0**	**0**
Algeria	1,837	491	0	0	0	0	0	0	0	0	0
Iraq	11,778	0	447	0	0	0	0	0	0	0	0
Kuwait	5,910	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	20,758	0	1,043	0	31	163	0	0	0	0	0
United Arab Emirates	420	0	0	0	0	0	0	0	0	0	0
Other OPEC	**20,316**	**0**	**690**	**250**	**260**	**119**	**0**	**0**	**0**	**0**	**0**
Ecuador	702	0	0	0	0	0	0	0	0	0	0
Gabon	737	0	0	0	0	0	0	0	0	0	0
Indonesia	739	0	0	0	0	0	0	0	0	0	0
Nigeria	6,142	0	0	0	0	0	0	0	0	0	0
Venezuela	11,996	0	690	250	260	119	0	0	0	0	0
Non OPEC	**43,308**	**1,297**	**3,515**	**0**	**0**	**531**	**0**	**255**	**0**	**41**	**296**
Angola	6,689	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	41	0	0	0	0	0	0	0	0
Australia	148	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	326	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0	0
Cameroon	2,095	0	0	0	0	0	0	0	0	0	0
Canada	0	194	7	0	0	0	0	0	0	0	0
China, People's Republic of	2,051	0	0	0	0	0	0	0	0	0	0
Colombia	3,172	0	0	0	0	0	0	0	0	0	0
Congo	1,337	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	30	0	0	0	0	0	0	0	0	0
Guatemala	220	0	0	0	0	0	0	0	0	0	0
India	180	0	267	0	0	0	0	0	0	0	0
Italy	0	0	245	0	0	0	0	255	0	0	255
Japan	0	6	0	0	0	0	0	0	0	0	0
Mexico	17,842	1,058	0	0	0	305	0	0	0	41	41
Netherlands	0	0	107	0	0	0	0	0	0	0	0
Norway	1,511	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	161	0	0	0	0	0	0	0	0
Syria	573	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,653	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	357	0	0	0	0	0	0	0	0
United Kingdom	5,837	0	187	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,677	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	226	0	0	0	0	0
Other	0	9	140	0	0	0	0	0	0	0	0
Total	**104,327**	**1,788**	**5,695**	**250**	**291**	**813**	**0**	**255**	**0**	**41**	**296**

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products Total	Crude Oil and Products Daily Average
Arab OPEC	**0**	**0**	**1,994**	**1,576**	**0**	**0**	**0**	**5,745**	**46,448**	**1,498**
Algeria	0	0	1,994	1,576	0	0	0	4,061	5,898	190
Iraq	0	0	0	0	0	0	0	447	12,225	394
Kuwait	0	0	0	0	0	0	0	0	5,910	191
Saudi Arabia	0	0	0	0	0	0	0	1,237	21,995	710
United Arab Emirates	0	0	0	0	0	0	0	0	420	14
Other OPEC	**0**	**0**	**252**	**0**	**0**	**41**	**0**	**1,612**	**21,928**	**707**
Ecuador	0	0	0	0	0	0	0	0	702	23
Gabon	0	0	0	0	0	0	0	0	737	24
Indonesia	0	0	0	0	0	0	0	0	739	24
Nigeria	0	0	0	0	0	0	0	0	6,142	198
Venezuela	0	0	252	0	0	41	0	1,612	13,608	439
Non OPEC	**230**	**123**	**651**	**0**	**21**	**9**	**9**	**6,682**	**49,990**	**1,613**
Angola	0	0	0	0	0	0	0	0	6,689	216
Argentina	0	0	0	0	0	0	0	41	41	1
Australia	0	0	0	0	0	0	0	0	148	5
Belgium	0	0	0	0	0	0	0	326	326	11
Brazil	0	0	4	0	0	0	0	4	4	(s)
Cameroon	0	0	0	0	0	0	0	0	2,095	68
Canada	0	123	0	0	0	0	0	324	324	10
China, People's Republic of	0	0	0	0	21	0	0	21	2,072	67
Colombia	0	0	0	0	0	0	0	0	3,172	102
Congo	0	0	0	0	0	0	0	0	1,337	43
France	0	0	35	0	0	0	0	35	35	1
Germany, FR (W)	0	0	0	0	0	0	0	30	30	1
Guatemala	0	0	0	0	0	0	0	0	220	7
India	0	0	294	0	0	0	0	561	741	24
Italy	0	0	0	0	0	0	0	500	500	16
Japan	0	0	0	0	0	0	0	6	6	(s)
Mexico	0	0	0	0	0	9	0	1,413	19,255	621
Netherlands	0	0	241	0	0	0	0	348	348	11
Norway	0	0	0	0	0	0	0	0	1,511	49
Puerto Rico	0	0	35	0	0	0	9	44	44	1
Sweden	0	0	15	0	0	0	0	176	176	6
Syria	0	0	0	0	0	0	0	0	573	18
Trinidad and Tobago	0	0	0	0	0	0	0	0	1,653	53
Turkey	0	0	0	0	0	0	0	357	357	12
United Kingdom	0	0	14	0	0	0	0	201	6,038	195
U.S.S.R.	0	0	0	0	0	0	0	1,677	1,677	54
Virgin Islands	230	0	0	0	0	0	0	456	456	15
Other	0	0	13	0	0	0	0	162	162	5
Total	**230**	**123**	**2,897**	**1,576**	**21**	**50**	**9**	**14,039**	**118,366**	**3,818**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District IV											
Non OPEC	**1,732**	**230**	**0**	**0**	**32**	**0**	**65**	**0**	**0**	**0**	**0**
Canada	1,732	230	0	0	32	0	65	0	0	0	0
Total	**1,732**	**230**	**0**	**0**	**32**	**0**	**65**	**0**	**0**	**0**	**0**
PAD District V											
Other OPEC	**3,362**	**0**	**190**	**0**	**0**	**0**	**0**	**953**	**0**	**242**	**1,195**
Ecuador	623	0	0	0	0	0	0	0	0	0	0
Indonesia	2,739	0	190	0	0	0	0	953	0	0	953
Venezuela	0	0	0	0	0	0	0	0	0	242	242
Non OPEC	**5,715**	**173**	**977**	**0**	**77**	**127**	**50**	**585**	**146**	**240**	**971**
Australia	1,503	0	0	0	0	0	0	0	146	0	146
Brunei	668	0	0	0	0	0	0	0	0	0	0
Canada	727	173	175	0	77	10	50	0	0	0	0
China, People's Republic of	539	0	0	0	0	0	0	0	0	0	0
Italy	0	0	364	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	190	0	0	0	0	0	0	0	0
Malaysia	879	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	248	0	0	0	0	0	0	0	0
Oman	962	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	117	0	585	0	240	825
Thailand	201	0	0	0	0	0	0	0	0	0	0
Other	236	0	0	0	0	0	0	0	0	0	0
Total	**9,077**	**173**	**1,167**	**0**	**77**	**127**	**50**	**1,538**	**146**	**482**	**2,166**

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**389**	**2,121**	**68**
Canada	0	0	0	0	0	0	62	389	2,121	68
Total	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**389**	**2,121**	**68**
					PAD District V					
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,385**	**4,747**	**153**
Ecuador	0	0	0	0	0	0	0	0	623	20
Indonesia	0	0	0	0	0	0	0	1,143	3,882	125
Venezuela	0	0	0	0	0	0	0	242	242	8
Non OPEC	**0**	**11**	**0**	**0**	**6**	**1**	**46**	**2,439**	**8,154**	**263**
Australia	0	0	0	0	0	0	0	146	1,649	53
Brunei	0	0	0	0	0	0	0	0	668	22
Canada	0	11	0	0	0	1	45	542	1,269	41
China, People's Republic of	0	0	0	0	0	0	0	0	539	17
Italy	0	0	0	0	0	0	0	364	364	12
Japan	0	0	0	0	6	0	0	6	6	(s)
Korea, Republic of	0	0	0	0	0	0	0	190	190	6
Malaysia	0	0	0	0	0	0	0	0	879	28
Mexico	0	0	0	0	0	0	1	1	1	(s)
Netherlands	0	0	0	0	0	0	0	248	248	8
Oman	0	0	0	0	0	0	0	0	962	31
Singapore	0	0	0	0	0	0	0	942	942	30
Thailand	0	0	0	0	0	0	0	0	201	6
Other	0	0	0	0	0	0	0	0	236	8
Total	**0**	**11**	**0**	**0**	**6**	**1**	**46**	**3,824**	**12,901**	**416**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	548,307	8,864	27,739	91	11,321	2,672	4,545	11,184	1,526	1,143	13,853
Algeria	17,846	6,961	6,541	0	217	0	3,407	11,184	1,526	29	12,739
Iraq	135,412	0	2,827	0	0	0	0	0	0	0	0
Kuwait	48,590	621	0	0	0	169	0	0	0	0	0
Qatar	767	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	338,179	343	17,318	91	11,104	2,503	1,138	0	0	1,114	1,114
United Arab Emirates	7,513	939	1,053	0	0	0	0	0	0	0	0
Other OPEC	468,992	2,385	14,256	2,860	22,952	9,077	31,022	8,099	1,592	27,135	36,826
Ecuador	26,632	0	0	0	0	0	0	0	37	2,380	2,417
Gabon	12,172	0	0	0	0	0	0	166	198	0	364
Indonesia	44,344	0	1,336	0	0	0	0	4,406	0	371	4,777
Nigeria	238,998	0	431	0	0	0	233	2,380	833	60	3,273
Venezuela	146,846	2,385	12,489	2,860	22,952	9,077	30,789	1,147	524	24,324	25,995
Non OPEC	748,179	42,335	67,323	14,046	77,320	19,352	55,656	30,727	42,381	63,741	136,849
Angola	81,160	0	0	0	0	0	0	978	338	0	1,316
Argentina	2,900	0	164	481	1,285	0	273	0	1,993	0	1,993
Australia	8,462	96	0	0	286	0	100	244	438	0	682
Bahama Islands	0	0	1	0	0	0	245	304	3,457	6,005	9,766
Belgium	0	0	2,646	0	665	0	726	160	530	193	883
Benin	690	0	0	0	0	0	0	0	0	0	0
Brazil	0	243	0	490	15,783	0	1,927	5,114	2,256	34	7,404
Brunei	3,674	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	219	0	0	0	190	0	0	0	0
Cameroon	12,900	0	0	0	0	0	0	0	2,315	0	2,315
Canada	187,841	33,461	3,505	550	14,089	3,035	18,671	868	2,878	4,688	8,434
China, People's Republic of	22,088	0	0	0	1,349	0	0	0	0	0	0
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0
Colombia	38,130	0	170	0	0	0	357	316	400	9,770	10,486
Congo	3,220	0	0	0	0	0	0	1,206	0	0	1,206
Denmark	0	0	0	0	0	0	0	0	1,045	0	1,045
Egypt	3,327	0	677	0	0	0	0	0	0	0	0
France	0	364	157	255	2,729	0	0	0	616	194	810
Germany, DR (E)	0	0	0	0	0	0	1,839	0	0	203	203
Germany, FR (W)	0	213	510	0	0	0	533	0	0	0	0
Ghana	0	0	0	0	0	0	0	483	0	0	483
Greece	0	0	251	0	795	756	0	1,651	634	321	2,606
Guatemala	655	0	0	0	0	0	0	0	0	0	0
India	363	0	6,784	0	0	0	0	0	0	0	0
Ireland	0	0	220	0	0	0	0	0	221	0	221
Israel	0	0	402	0	0	0	0	0	0	0	0
Italy	1,063	41	3,916	22	3,519	0	0	255	356	199	810
Japan	0	267	0	0	0	425	15	0	0	0	0
Korea, Republic of	0	0	522	0	0	186	163	0	0	0	0
Malaysia	10,036	0	0	0	0	0	0	0	0	0	0
Mexico	221,728	6,869	0	0	2	3,301	1,419	30	11	2,839	2,880
Netherlands	0	0	3,402	45	8,030	0	447	328	1,401	531	2,260
Netherlands Antilles	0	0	475	741	1,810	81	872	190	587	6,349	7,126
Norway	39,893	0	537	0	272	0	0	0	2,159	0	2,159
Oman	6,671	0	401	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	447	447
Peru	359	0	604	0	0	0	0	158	2,490	6,291	8,939
Puerto Rico	0	0	1,023	3,179	0	0	0	8	0	0	8
Romania	0	0	0	4,810	1,669	0	251	0	366	376	742
Singapore	0	0	829	0	0	804	0	3,466	0	527	3,993
Spain	0	0	4,376	0	9,106	2,541	577	0	737	817	1,554
Sweden	0	0	1,195	0	0	0	434	0	1,714	0	1,714
Syria	3,477	0	733	0	0	0	0	0	0	961	961
Thailand	5,087	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	22,465	0	0	0	0	532	1,072	0	0	4,315	4,315
Tunisia	1,767	0	0	0	0	0	0	0	0	0	0
Turkey	0	81	2,103	0	0	0	0	0	0	1,178	1,178
United Kingdom	53,214	518	435	28	4,442	0	3,073	311	7,191	2,350	9,852
U.S.S.R.	0	0	10,947	0	0	0	3,236	520	139	1,105	1,764
Virgin Islands	0	0	19,482	3,415	10,361	7,679	18,930	13,708	7,859	13,878	35,445
Zaire	7,914	0	0	0	0	0	0	101	0	0	101
Other	9,095	182	637	30	1,128	12	306	328	250	170	748
Total	1,765,478	53,584	109,318	16,997	111,593	31,101	91,223	50,010	45,499	92,019	187,528

See footnotes at end of table.

able 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
ab OPEC	**0**	**44**	**12,715**	**17,990**	**0**	**0**	**0**	**99,834**	**648,141**	2,132
Algeria	0	44	12,715	17,990	0	0	0	60,614	78,460	258
Iraq	0	0	0	0	0	0	0	2,827	138,239	455
Kuwait	0	0	0	0	0	0	0	790	49,380	162
Qatar	0	0	0	0	0	0	0	0	767	3
Saudi Arabia	0	0	0	0	0	0	0	33,611	371,790	1,223
United Arab Emirates	0	0	0	0	0	0	0	1,992	9,505	31
ther OPEC	**0**	**5**	**1,817**	**145**	**22**	**6,665**	**0**	**128,032**	**597,024**	1,964
Ecuador	0	0	0	0	0	0	0	2,417	29,049	96
Gabon	0	0	0	0	0	0	0	364	12,536	41
Indonesia	0	0	717	0	0	0	0	6,830	51,174	168
Nigeria	0	0	0	145	22	0	0	4,104	243,102	800
Venezuela	0	5	1,100	0	0	6,665	0	114,317	261,163	859
on OPEC	**1,835**	**2,087**	**9,919**	**83**	**3,409**	**3,021**	**3,781**	**437,016**	**1,185,195**	3,899
Angola	0	0	0	0	0	0	0	1,316	82,476	271
Argentina	0	168	0	83	0	0	0	4,447	7,347	24
Australia	0	0	0	0	0	0	0	1,164	9,626	32
Bahama Islands	0	0	0	0	0	0	0	10,012	10,012	33
Belgium	0	0	0	0	0	0	0	4,920	4,920	16
Benin	0	0	0	0	0	0	0	0	690	2
Brazil	0	32	4	0	64	0	53	26,000	26,000	86
Brunei	0	0	0	0	0	0	0	0	3,674	12
Bulgaria	0	0	0	0	0	0	0	409	409	1
Cameroon	0	0	0	0	0	0	0	2,315	15,215	50
Canada	401	1,658	694	0	625	1,414	1,487	88,024	275,865	907
China, People's Republic of	0	29	0	0	73	0	76	1,527	23,615	78
China, Taiwan	0	0	0	0	7	0	0	7	7	(s)
Colombia	0	0	0	0	0	0	0	11,013	49,143	162
Congo	0	0	0	0	0	0	0	1,206	4,426	15
Denmark	0	0	0	0	0	0	0	1,045	1,045	3
Egypt	0	0	457	0	0	0	14	1,148	4,475	15
France	6	0	284	0	0	0	0	4,605	4,605	15
Germany, DR (E)	0	0	0	0	0	0	0	2,042	2,042	7
Germany, FR (W)	0	0	28	0	0	0	76	1,360	1,360	4
Ghana	0	0	0	0	0	0	0	483	483	2
Greece	0	0	0	0	0	0	0	4,408	4,408	15
Guatemala	0	0	0	0	0	0	0	0	655	2
India	0	0	3,681	0	0	0	0	10,465	10,828	36
Ireland	0	0	0	0	0	0	0	441	441	1
Israel	0	0	0	0	0	0	0	402	402	1
Italy	0	9	405	0	0	0	47	8,769	9,832	32
Japan	0	8	172	0	37	0	191	1,115	1,115	4
Korea, Republic of	0	0	143	0	0	0	0	1,014	1,014	3
Malaysia	0	0	0	0	0	0	0	0	10,036	33
Mexico	0	33	0	0	0	77	1,194	15,775	237,503	781
Netherlands	0	32	574	0	76	0	24	14,890	14,890	49
Netherlands Antilles	0	0	0	0	0	502	0	11,607	11,607	38
Norway	0	0	0	0	0	0	0	2,968	42,861	141
Oman	0	0	0	0	0	0	0	401	7,072	23
Panama	0	0	0	0	0	0	0	447	447	1
Peru	0	0	0	0	0	0	0	9,543	9,902	33
Puerto Rico	0	82	2,287	0	2,512	0	565	9,656	9,656	32
Romania	0	0	0	0	0	0	0	7,472	7,472	25
Singapore	0	0	0	0	0	0	0	5,626	5,626	19
Spain	0	0	501	0	0	1,000	0	19,655	19,655	65
Sweden	0	0	57	0	0	0	0	3,400	3,400	11
Syria	0	0	0	0	0	0	0	1,694	5,171	17
Thailand	0	0	0	0	0	0	0	0	5,087	17
Trinidad and Tobago	134	36	0	0	0	28	0	6,117	28,582	94
Tunisia	0	0	0	0	0	0	0	0	1,767	6
Turkey	0	0	0	0	0	0	0	3,362	3,362	11
United Kingdom	0	0	194	0	0	0	3	18,545	71,759	236
U.S.S.R.	0	0	0	0	0	0	0	15,947	15,947	52
Virgin Islands	1,294	0	317	0	0	0	0	96,923	96,923	319
Zaire	0	0	0	0	0	0	0	101	8,015	26
Other	0	0	121	0	15	0	51	3,230	12,325	41
Total	**1,835**	**2,136**	**24,451**	**18,218**	**3,431**	**9,686**	**3,781**	**664,882**	**2,430,360**	7,995

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**77,257**	**4,007**	**4,600**	**91**	**9,841**	**1,180**	**4,080**	**10,189**	**1,211**	**1,047**	**12,447**
Algeria	449	4,007	4,433	0	217	0	2,942	10,189	1,211	29	11,429
Iraq	11,197	0	0	0	0	0	0	0	0	0	0
Kuwait	2,467	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	63,144	0	167	91	9,624	1,180	1,138	0	0	1,018	1,018
Other OPEC	**147,459**	**1,166**	**3,752**	**0**	**21,303**	**6,997**	**30,666**	**3,765**	**1,592**	**26,294**	**31,651**
Ecuador	9,434	0	0	0	0	0	0	0	37	2,380	2,417
Gabon	3,195	0	0	0	0	0	0	166	198	0	364
Indonesia	0	0	250	0	0	0	0	429	0	371	800
Nigeria	110,291	0	0	0	0	0	233	2,380	833	60	3,273
Venezuela	24,539	1,166	3,502	0	21,303	6,997	30,433	790	524	23,483	24,797
Non OPEC	**135,940**	**2,573**	**29,691**	**12,232**	**70,751**	**10,515**	**50,942**	**26,402**	**41,906**	**61,017**	**129,325**
Angola	25,879	0	0	0	0	0	0	978	338	0	1,316
Argentina	2,068	0	86	380	886	0	273	0	1,993	0	1,993
Australia	0	0	0	0	286	0	100	0	0	0	0
Bahama Islands	0	0	0	0	0	0	245	304	3,457	6,005	9,766
Belgium	0	0	1,112	0	665	0	726	160	530	193	883
Brazil	0	0	0	259	15,486	0	1,927	5,114	2,256	34	7,404
Bulgaria	0	0	219	0	0	0	190	0	0	0	0
Cameroon	4,275	0	0	0	0	0	0	0	2,315	0	2,315
Canada	18,140	2,573	803	401	10,918	1,880	14,812	0	2,841	4,132	6,973
China, People's Republic of	5,693	0	0	0	0	0	0	0	0	0	0
Colombia	5,792	0	0	0	0	0	357	316	400	9,770	10,486
Congo	0	0	0	0	0	0	0	1,206	0	0	1,206
Denmark	0	0	0	0	0	0	0	0	1,045	0	1,045
Egypt	2,603	0	222	0	0	0	0	0	0	0	0
France	0	0	0	255	2,729	0	0	0	616	194	810
Germany, DR (E)	0	0	0	0	0	0	1,839	0	0	203	203
Germany, FR (W)	0	0	256	0	0	0	533	0	0	0	0
Ghana	0	0	0	0	0	0	0	483	0	0	483
Greece	0	0	0	0	795	0	0	1,651	634	321	2,606
India	0	0	1,076	0	0	0	0	0	0	0	0
Ireland	0	0	220	0	0	0	0	0	221	0	221
Israel	0	0	402	0	0	0	0	0	0	0	0
Italy	1,063	0	1,915	22	3,519	0	0	0	356	0	356
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	27,439	0	0	0	0	370	1,419	30	11	2,098	2,139
Netherlands	0	0	2,014	31	7,785	0	447	328	1,401	531	2,260
Netherlands Antilles	0	0	0	0	1,810	81	872	190	587	6,349	7,126
Norway	29,534	0	537	0	272	0	0	0	2,159	0	2,159
Panama	0	0	0	0	0	0	0	0	0	447	447
Peru	359	0	0	0	0	0	0	158	2,490	6,291	8,939
Puerto Rico	0	0	1,023	3,179	0	0	0	8	0	0	8
Romania	0	0	0	4,768	1,669	0	251	0	366	376	742
Singapore	0	0	521	0	0	0	0	995	0	22	1,017
Spain	0	0	2,739	0	9,106	1,780	571	0	737	817	1,554
Sweden	0	0	447	0	0	0	434	0	1,714	0	1,714
Syria	1,742	0	0	0	0	0	0	0	0	723	723
Trinidad and Tobago	430	0	0	0	0	97	1,072	0	0	4,315	4,315
Turkey	0	0	0	0	0	0	0	0	0	693	693
United Kingdom	8,726	0	164	28	4,204	0	3,073	311	7,191	2,350	9,852
U.S.S.R.	0	0	0	0	0	0	3,236	229	139	1,105	1,473
Virgin Islands	0	0	15,756	2,879	9,493	6,295	18,259	13,708	7,859	13,878	35,445
Zaire	2,197	0	0	0	0	0	0	101	0	0	101
Other	0	0	179	30	1,128	12	306	132	250	170	552
Total	**360,656**	**7,746**	**38,043**	**12,323**	**101,895**	**18,692**	**85,688**	**40,356**	**44,709**	**88,358**	**173,423**

See footnotes at end of table.

able 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
rab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**36,246**	**113,503**	**373**
Algeria	0	0	0	0	0	0	0	23,028	23,477	77
Iraq	0	0	0	0	0	0	0	0	11,197	37
Kuwait	0	0	0	0	0	0	0	0	2,467	8
Saudi Arabia	0	0	0	0	0	0	0	13,218	76,362	251
ther OPEC	**0**	**5**	**0**	**145**	**0**	**6,361**	**0**	**102,046**	**249,505**	**821**
Ecuador	0	0	0	0	0	0	0	2,417	11,851	39
Gabon	0	0	0	0	0	0	0	364	3,559	12
Indonesia	0	0	0	0	0	0	0	1,050	1,050	3
Nigeria	0	0	0	145	0	0	0	3,651	113,942	375
Venezuela	0	5	0	0	0	6,361	0	94,564	119,103	392
on OPEC	**1,268**	**87**	**1,846**	**0**	**3,031**	**2,741**	**2,075**	**317,077**	**453,017**	**1,490**
Angola	0	0	0	0	0	0	0	1,316	27,195	89
Argentina	0	0	0	0	0	0	0	3,618	5,686	19
Australia	0	0	0	0	0	0	0	386	386	1
Bahama Islands	0	0	0	0	0	0	0	10,011	10,011	33
Belgium	0	0	0	0	0	0	0	3,386	3,386	11
Brazil	0	0	0	0	64	0	13	25,153	25,153	83
Bulgaria	0	0	0	0	0	0	0	409	409	1
Cameroon	0	0	0	0	0	0	0	2,315	6,590	22
Canada	401	59	113	0	364	1,211	98	40,606	58,746	193
China, People's Republic of	0	0	0	0	0	0	76	76	5,769	19
Colombia	0	0	0	0	0	0	0	10,843	16,635	55
Congo	0	0	0	0	0	0	0	1,206	1,206	4
Denmark	0	0	0	0	0	0	0	1,045	1,045	3
Egypt	0	0	0	0	0	0	10	232	2,835	9
France	0	0	34	0	0	0	0	3,828	3,828	13
Germany, DR (E)	0	0	0	0	0	0	0	2,042	2,042	7
Germany, FR (W)	0	0	0	0	0	0	67	856	856	3
Ghana	0	0	0	0	0	0	0	483	483	2
Greece	0	0	0	0	0	0	0	3,401	3,401	11
India	0	0	0	0	0	0	0	1,076	1,076	4
Ireland	0	0	0	0	0	0	0	441	441	1
Israel	0	0	0	0	0	0	0	402	402	1
Italy	0	9	0	0	0	0	25	5,846	6,909	23
Japan	0	8	6	0	0	0	56	70	70	(s)
Mexico	0	0	0	0	0	0	1,170	5,098	32,537	107
Netherlands	0	11	2	0	76	0	2	12,628	12,628	42
Netherlands Antilles	0	0	0	0	0	502	0	10,391	10,391	34
Norway	0	0	0	0	0	0	0	2,968	32,502	107
Panama	0	0	0	0	0	0	0	447	447	1
Peru	0	0	0	0	0	0	0	8,939	9,298	31
Puerto Rico	0	0	1,691	0	2,512	0	529	8,942	8,942	29
Romania	0	0	0	0	0	0	0	7,430	7,430	24
Singapore	0	0	0	0	0	0	0	1,538	1,538	5
Spain	0	0	0	0	0	1,000	0	16,750	16,750	55
Sweden	0	0	0	0	0	0	0	2,595	2,595	9
Syria	0	0	0	0	0	0	0	723	2,465	8
Trinidad and Tobago	134	0	0	0	0	28	0	5,646	6,076	20
Turkey	0	0	0	0	0	0	0	693	693	2
United Kingdom	0	0	0	0	0	0	1	17,322	26,048	86
U.S.S.R.	0	0	0	0	0	0	0	4,709	4,709	15
Virgin Islands	733	0	0	0	0	0	0	88,860	88,860	292
Zaire	0	0	0	0	0	0	0	101	2,298	8
Other	0	0	0	0	15	0	28	2,250	2,250	7
Total	**1,268**	**92**	**1,846**	**145**	**3,031**	**9,102**	**2,075**	**455,369**	**816,025**	**2,684**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
Arab OPEC	**59,237**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Algeria	3,136	0	0	0	0	0	0	0	0	0	0
Iraq	17,052	0	0	0	0	0	0	0	0	0	0
Kuwait	1,505	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	37,544	0	0	0	0	0	0	0	0	0	0
Other OPEC	**65,162**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Ecuador	6,071	0	0	0	0	0	0	0	0	0	0
Indonesia	2,482	0	0	0	0	0	0	0	0	0	0
Nigeria	43,646	0	0	0	0	0	0	0	0	0	0
Venezuela	12,963	0	0	0	0	0	0	0	0	0	0
Non OPEC	**191,737**	**27,007**	**0**	**0**	**1,297**	**887**	**2,206**	**864**	**37**	**500**	**1,401**
Angola	1,965	0	0	0	0	0	0	0	0	0	0
Cameroon	1,187	0	0	0	0	0	0	0	0	0	0
Canada	139,174	27,007	0	0	1,297	887	2,206	864	37	500	1,401
Colombia	2,902	0	0	0	0	0	0	0	0	0	0
Egypt	206	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	26,252	0	0	0	0	0	0	0	0	0	0
Norway	2,002	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	5,788	0	0	0	0	0	0	0	0	0	0
United Kingdom	5,759	0	0	0	0	0	0	0	0	0	0
Zaire	1,025	0	0	0	0	0	0	0	0	0	0
Other	5,477	0	0	0	0	0	0	0	0	0	0
Total	**316,136**	**27,007**	**0**	**0**	**1,297**	**887**	**2,206**	**864**	**37**	**500**	**1,401**

See footnotes at end of table.

ble 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
ab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59,237**	**195**
Algeria	0	0	0	0	0	0	0	0	3,136	10
Iraq	0	0	0	0	0	0	0	0	17,052	56
Kuwait	0	0	0	0	0	0	0	0	1,505	5
Saudi Arabia	0	0	0	0	0	0	0	0	37,544	124
her OPEC	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**45**	**65,207**	**214**
Ecuador	0	0	0	0	0	0	0	0	6,071	20
Indonesia	0	0	0	0	0	0	0	0	2,482	8
Nigeria	0	0	0	0	0	0	0	0	43,646	144
Venezuela	0	0	0	0	0	45	0	45	13,008	43
n OPEC	**0**	**643**	**298**	**0**	**261**	**179**	**533**	**34,712**	**226,449**	**745**
Angola	0	0	0	0	0	0	0	0	1,965	6
Cameroon	0	0	0	0	0	0	0	0	1,187	4
Canada	0	643	298	0	261	179	512	34,691	173,865	572
Colombia	0	0	0	0	0	0	0	0	2,902	10
Egypt	0	0	0	0	0	0	0	0	206	1
Germany, FR (W)	0	0	0	0	0	0	6	6	6	(s)
Mexico	0	0	0	0	0	0	0	0	26,252	86
Norway	0	0	0	0	0	0	0	0	2,002	7
Trinidad and Tobago	0	0	0	0	0	0	0	0	5,788	19
United Kingdom	0	0	0	0	0	0	0	0	5,759	19
Zaire	0	0	0	0	0	0	0	0	1,025	3
Other	0	0	0	0	0	0	15	15	5,492	18
tal	**0**	**643**	**298**	**0**	**261**	**224**	**533**	**34,757**	**350,893**	**1,154**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**411,348**	**4,857**	**23,139**	**0**	**31**	**1,048**	**465**	**995**	**315**	**96**	**1,40**
Algeria	14,261	2,954	2,108	0	0	0	465	995	315	0	1,31
Iraq	106,698	0	2,827	0	0	0	0	0	0	0	
Kuwait	44,618	621	0	0	0	0	0	0	0	0	
Qatar	767	0	0	0	0	0	0	0	0	0	
Saudi Arabia	237,491	343	17,151	0	31	1,048	0	0	0	96	9
United Arab Emirates	7,513	939	1,053	0	0	0	0	0	0	0	
Other OPEC	**220,304**	**1,219**	**9,960**	**2,860**	**1,169**	**1,758**	**0**	**357**	**0**	**544**	**90**
Ecuador	5,915	0	0	0	0	0	0	0	0	0	
Gabon	8,977	0	0	0	0	0	0	0	0	0	
Indonesia	11,007	0	896	0	0	0	0	0	0	0	
Nigeria	85,061	0	431	0	0	0	0	0	0	0	
Venezuela	109,344	1,219	8,633	2,860	1,169	1,758	0	357	0	544	90
Non OPEC	**356,486**	**9,099**	**35,806**	**1,482**	**208**	**5,836**	**677**	**742**	**0**	**1,717**	**2,45**
Angola	53,316	0	0	0	0	0	0	0	0	0	
Argentina	832	0	78	101	206	0	0	0	0	0	
Australia	348	96	0	0	0	0	0	0	0	0	
Bahama Islands	0	0	1	0	0	0	0	0	0	0	
Belgium	0	0	1,534	0	0	0	0	0	0	0	
Benin	690	0	0	0	0	0	0	0	0	0	
Brazil	0	243	0	231	0	0	0	0	0	0	
Cameroon	7,438	0	0	0	0	0	0	0	0	0	
Canada	3,128	225	2,188	0	0	0	0	0	0	54	5
China, People's Republic of	9,965	0	0	0	0	0	0	0	0	0	
Colombia	29,436	0	170	0	0	0	0	0	0	0	
Congo	3,220	0	0	0	0	0	0	0	0	0	
Egypt	518	0	455	0	0	0	0	0	0	0	
France	0	364	157	0	0	0	0	0	0	0	
Germany, FR (W)	0	213	254	0	0	0	0	0	0	0	
Greece	0	0	251	0	0	756	0	0	0	0	
Guatemala	655	0	0	0	0	0	0	0	0	0	
India	180	0	5,708	0	0	0	0	0	0	0	
Italy	0	41	1,637	0	0	0	0	255	0	199	45
Japan	0	267	0	0	0	0	0	0	0	0	
Korea, Republic of	0	0	332	0	0	0	0	0	0	0	
Malaysia	1,910	0	0	0	0	0	0	0	0	0	
Mexico	168,037	6,869	0	0	2	2,719	0	0	0	741	74
Netherlands	0	0	1,140	0	0	0	0	0	0	0	
Netherlands Antilles	0	0	475	741	0	0	0	0	0	0	
Norway	8,357	0	0	0	0	0	0	0	0	0	
Oman	1,904	0	401	0	0	0	0	0	0	0	
Peru	0	0	402	0	0	0	0	0	0	0	
Puerto Rico	0	0	0	0	0	0	0	0	0	0	
Romania	0	0	0	42	0	0	0	0	0	0	
Spain	0	0	1,637	0	0	761	6	0	0	0	
Sweden	0	0	748	0	0	0	0	0	0	0	
Syria	1,735	0	733	0	0	0	0	0	0	238	23
Trinidad and Tobago	16,247	0	0	0	0	216	0	0	0	0	
Tunisia	1,767	0	0	0	0	0	0	0	0	0	
Turkey	0	81	2,103	0	0	0	0	0	0	485	48
United Kingdom	38,729	518	271	0	0	0	0	0	0	0	
U.S.S.R.	0	0	10,947	0	0	0	0	291	0	0	29
Virgin Islands	0	0	3,726	367	0	1,384	671	0	0	0	
Zaire	4,692	0	0	0	0	0	0	0	0	0	
Other	3,382	182	458	0	0	0	0	196	0	0	19
Total	**988,138**	**15,175**	**68,905**	**4,342**	**1,408**	**8,642**	**1,142**	**2,094**	**315**	**2,357**	**4,76**

See footnotes at end of table.

ble 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
ab OPEC	**0**	**44**	**12,715**	**17,990**	**0**	**0**	**0**	**61,695**	**473,043**	1,556
Algeria	0	44	12,715	17,990	0	0	0	37,586	51,847	171
raq	0	0	0	0	0	0	0	2,827	109,525	360
Kuwait	0	0	0	0	0	0	0	621	45,239	149
Qatar	0	0	0	0	0	0	0	0	767	3
Saudi Arabia	0	0	0	0	0	0	0	18,669	256,160	843
United Arab Emirates	0	0	0	0	0	0	0	1,992	9,505	31
her OPEC	**0**	**0**	**1,817**	**0**	**22**	**259**	**0**	**19,965**	**240,269**	790
Ecuador	0	0	0	0	0	0	0	0	5,915	19
Gabon	0	0	0	0	0	0	0	0	8,977	30
Indonesia	0	0	717	0	0	0	0	1,613	12,620	42
Nigeria	0	0	0	0	22	0	0	453	85,514	281
Venezuela	0	0	1,100	0	0	259	0	17,899	127,243	419
n OPEC	**567**	**1,234**	**7,488**	**83**	**21**	**77**	**273**	**65,310**	**421,796**	**1,387**
Angola	0	0	0	0	0	0	0	0	53,316	175
Argentina	0	168	0	83	0	0	0	636	1,468	5
Australia	0	0	0	0	0	0	0	96	444	1
Bahama Islands	0	0	0	0	0	0	0	1	1	(s)
Belgium	0	0	0	0	0	0	0	1,534	1,534	5
Benin	0	0	0	0	0	0	0	0	690	2
Brazil	0	32	4	0	0	0	40	550	550	2
Cameroon	0	0	0	0	0	0	0	0	7,438	24
Canada	0	862	283	0	0	0	0	3,612	6,740	22
China, People's Republic of	0	0	0	0	21	0	0	21	9,986	33
Colombia	0	0	0	0	0	0	0	170	29,606	97
Congo	0	0	0	0	0	0	0	0	3,220	11
Egypt	0	0	457	0	0	0	4	916	1,434	5
France	6	0	250	0	0	0	0	777	777	3
Germany, FR (W)	0	0	28	0	0	0	3	498	498	2
Greece	0	0	0	0	0	0	0	1,007	1,007	3
Guatemala	0	0	0	0	0	0	0	0	655	2
India	0	0	3,681	0	0	0	0	9,389	9,569	31
Italy	0	0	405	0	0	0	22	2,559	2,559	8
Japan	0	0	22	0	0	0	135	424	424	1
Korea, Republic of	0	0	0	0	0	0	0	332	332	1
Malaysia	0	0	0	0	0	0	0	0	1,910	6
Mexico	0	33	0	0	0	77	2	10,443	178,480	587
Netherlands	0	21	572	0	0	0	22	1,755	1,755	6
Netherlands Antilles	0	0	0	0	0	0	0	1,216	1,216	4
Norway	0	0	0	0	0	0	0	0	8,357	27
Oman	0	0	0	0	0	0	0	401	2,305	8
Peru	0	0	0	0	0	0	0	402	402	1
Puerto Rico	0	82	596	0	0	0	36	714	714	2
Romania	0	0	0	0	0	0	0	42	42	(s)
Spain	0	0	501	0	0	0	0	2,905	2,905	10
Sweden	0	0	57	0	0	0	0	805	805	3
Syria	0	0	0	0	0	0	0	971	2,706	9
Trinidad and Tobago	0	36	0	0	0	0	0	252	16,499	54
Tunisia	0	0	0	0	0	0	0	0	1,767	6
Turkey	0	0	0	0	0	0	0	2,669	2,669	9
United Kingdom	0	0	194	0	0	0	2	985	39,714	131
U.S.S.R.	0	0	0	0	0	0	0	11,238	11,238	37
Virgin Islands	561	0	317	0	0	0	0	7,026	7,026	23
Zaire	0	0	0	0	0	0	0	0	4,692	15
Other	0	0	121	0	0	0	7	964	4,346	14
otal	**567**	**1,278**	**22,020**	**18,073**	**43**	**336**	**273**	**146,970**	**1,135,108**	**3,734**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Tota
					PAD District IV						
Non OPEC	**20,987**	**2,112**	**0**	**0**	**442**	**0**	**660**	**4**	**0**	**2**	
Canada	20,987	2,112	0	0	442	0	660	4	0	2	
Total	**20,987**	**2,112**	**0**	**0**	**442**	**0**	**660**	**4**	**0**	**2**	
					PAD District V						
Arab OPEC	**465**	**0**	**0**	**0**	**1,449**	**444**	**0**	**0**	**0**	**0**	
Iraq	465	0	0	0	0	0	0	0	0	0	
Kuwait	0	0	0	0	0	169	0	0	0	0	
Saudi Arabia	0	0	0	0	1,449	275	0	0	0	0	
Other OPEC	**36,067**	**0**	**544**	**0**	**480**	**322**	**356**	**3,977**	**0**	**297**	**4,27**
Ecuador	5,212	0	0	0	0	0	0	0	0	0	
Indonesia	30,855	0	190	0	0	0	0	3,977	0	0	3,97
Venezuela	0	0	354	0	480	322	356	0	0	297	29
Non OPEC	**43,029**	**1,544**	**1,826**	**332**	**4,622**	**2,114**	**1,171**	**2,715**	**438**	**505**	**3,65**
Argentina	0	0	0	0	193	0	0	0	0	0	0
Australia	8,114	0	0	0	0	0	0	244	438	0	68
Brazil	0	0	0	0	297	0	0	0	0	0	0
Brunei	3,674	0	0	0	0	0	0	0	0	0	0
Canada	6,412	1,544	514	149	1,432	268	993	0	0	0	0
China, People's Republic of	6,430	0	0	0	1,349	0	0	0	0	0	0
China, Taiwan	0	0	0	0	0	0	0	0	0	0	0
India	183	0	0	0	0	0	0	0	0	0	0
Italy	0	0	364	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	425	15	0	0	0	0
Korea, Republic of	0	0	190	0	0	186	163	0	0	0	0
Malaysia	8,126	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	212	0	0	0	0	0
Netherlands	0	0	248	14	245	0	0	0	0	0	0
Oman	4,767	0	0	0	0	0	0	0	0	0	0
Peru	0	0	202	0	0	0	0	0	0	0	0
Singapore	0	0	308	0	0	804	0	2,471	0	505	2,976
Thailand	5,087	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	219	0	0	0	0	0
United Kingdom	0	0	0	0	238	0	0	0	0	0	0
Virgin Islands	0	0	0	169	868	0	0	0	0	0	0
Other	236	0	0	0	0	0	0	0	0	0	0
Total	79,561	1,544	2,370	332	6,551	2,880	1,527	6,692	438	802	7,932

See footnotes at end of table.

le 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-October 1989 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
OPEC	**0**	**1**	**0**	**0**	**0**	**0**	**619**	**3,840**	**24,827**	**82**
anada	0	1	0	0	0	0	619	3,840	24,827	82
l	**0**	**1**	**0**	**0**	**0**	**0**	**619**	**3,840**	**24,827**	**82**
					PAD District V					
OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,893**	**2,358**	**8**
aq	0	0	0	0	0	0	0	0	465	2
uwait	0	0	0	0	0	0	0	169	169	1
audi Arabia	0	0	0	0	0	0	0	1,724	1,724	6
er OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,976**	**42,043**	**138**
cuador	0	0	0	0	0	0	0	0	5,212	17
ndonesia	0	0	0	0	0	0	0	4,167	35,022	115
enezuela	0	0	0	0	0	0	0	1,809	1,809	6
OPEC	**0**	**122**	**287**	**0**	**96**	**24**	**281**	**16,077**	**59,106**	**194**
rgentina	0	0	0	0	0	0	0	193	193	1
ustralia	0	0	0	0	0	0	0	682	8,796	29
razil	0	0	0	0	0	0	0	297	297	1
runei	0	0	0	0	0	0	0	0	3,674	12
anada	0	93	0	0	0	24	258	5,275	11,687	38
hina, People's Republic of	0	29	0	0	52	0	0	1,430	7,860	26
hina, Taiwan	0	0	0	0	7	0	0	7	7	(s)
ndia	0	0	0	0	0	0	0	0	183	1
aly	0	0	0	0	0	0	0	364	364	1
apan	0	0	144	0	37	0	0	621	621	2
orea, Republic of	0	0	143	0	0	0	0	682	682	2
alaysia	0	0	0	0	0	0	0	0	8,126	27
exico	0	0	0	0	0	0	22	234	234	1
etherlands	0	0	0	0	0	0	0	507	507	2
man	0	0	0	0	0	0	0	0	4,767	16
eru	0	0	0	0	0	0	0	202	202	1
ingapore	0	0	0	0	0	0	0	4,088	4,088	13
hailand	0	0	0	0	0	0	0	0	5,087	17
rinidad and Tobago	0	0	0	0	0	0	0	219	219	1
nited Kingdom	0	0	0	0	0	0	0	238	238	1
irgin Islands	0	0	0	0	0	0	0	1,037	1,037	3
ther	0	0	0	0	0	0	1	1	237	1
al	**0**	**122**	**287**	**0**	**96**	**24**	**281**	**23,946**	**103,507**	**340**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, October 1989

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**(s)**	**107**	**0**	**0**	**1,777**	**1,885**	**61**
Natural Gas Liquids	**78**	**402**	**280**	**0**	**249**	**1,008**	**33**
Pentanes Plus	3	22	13	0	4	42	1
Liquefied Petroleum Gases	74	380	267	0	245	966	31
Ethane/Ethylene	5	0	0	0	0	5	(s)
Propane/Propylene	52	220	187	0	239	699	23
Normal Butane/Butylene	17	160	80	0	6	263	8
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**399**	**1,965**	**9,484**	**6**	**9,770**	**21,624**	**698**
Finished Motor Gasoline	5	2	408	0	478	893	29
Naphtha-Type Jet Fuel	0	0	68	0	0	68	2
Kerosene-Type Jet Fuel	(s)	1	813	0	35	849	27
Kerosene	4	2	1	0	2	10	(s)
Distillate Fuel Oil	5	125	2,016	0	639	2,785	90
Residual Fuel Oil	6	0	2,247	1	5,275	7,528	243
Naphtha for Petrochemical Feedstock Use	41	23	84	0	5	153	5
Other Oils for Petrochemical Feedstock Use	0	12	691	0	259	961	31
Special Naphthas	207	9	11	0	18	245	8
Lubricants	90	45	265	3	109	513	17
Waxes	6	4	24	0	10	44	1
Petroleum Coke	20	1,705	2,841	1	2,921	7,488	242
Asphalt and Road Oil	2	33	2	1	15	53	2
Miscellaneous Products	13	2	11	0	6	32	1
Total	**477**	**2,475**	**9,764**	**6**	**11,796**	**24,517**	**791**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-October 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**(s)**	**2,155**	**0**	**0**	**38,287**	**40,442**	133
Natural Gas Liquids	**780**	**3,110**	**5,476**	**13**	**3,204**	**12,584**	41
Pentanes Plus	165	234	1,431	10	256	2,096	7
Liquefied Petroleum Gases	616	2,876	4,044	3	2,949	10,488	34
Ethane/Ethylene	59	0	(s)	1	11	71	(s)
Propane/Propylene	298	1,822	2,947	2	2,197	7,267	24
Normal Butane/Butylene	259	1,054	1,097	(s)	740	3,150	10
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**6,005**	**5,376**	**91,538**	**63**	**95,125**	**198,106**	652
Finished Motor Gasoline	299	116	9,163	5	3,017	12,599	41
Naphtha-Type Jet Fuel	3	4	456	6	(s)	469	2
Kerosene-Type Jet Fuel	3	39	4,020	0	1,992	6,054	20
Kerosene	37	20	90	(s)	7	155	1
Distillate Fuel Oil	568	205	16,305	4	10,438	27,520	91
Residual Fuel Oil	880	45	13,431	1	47,222	61,579	203
Naphtha for Petrochemical Feedstock Use	236	42	1,007	0	77	1,363	4
Other Oils for Petrochemical Feedstock Use	2	326	3,751	0	2,506	6,586	22
Special Naphthas	1,335	151	1,340	5	522	3,352	11
Lubricants	1,338	325	2,566	36	1,051	5,316	17
Waxes	64	23	319	(s)	92	499	2
Petroleum Coke	1,035	3,130	38,946	1	27,966	71,079	234
Asphalt and Road Oil	56	808	33	4	178	1,078	4
Miscellaneous Products	148	141	111	1	57	458	2
Total	**6,786**	**10,640**	**97,013**	**77**	**136,616**	**251,133**	826

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, October 1989
(Thousand Barrels)

Destination	Crude Oil^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	0
Australia	0	0	(s)	0	0	0	3	0	11
Bahama Islands	0	0	3	54	30	0	258	312	0
Bahrain	0	0	0	0	0	0	0	0	0
Belgium & Luxembourg	0	0	0	0	0	0	(s)	0	0
Brazil	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	0	0	0	0	0	0
Canada	108	23	432	42	548	7	355	1,358	25
Chile	0	0	0	0	0	(s)	0	0	0
China, Taiwan	0	0	(s)	23	0	0	1	1,703	5
Colombia	0	0	1	0	0	0	0	0	0
Costa Rica	0	0	0	0	10	0	0	0	2
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	(s)	198	0
Ecuador	0	0	0	0	0	0	0	0	2
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	10	0	0	0	(s)
Finland	0	0	0	0	0	0	0	0	0
France	0	0	1	0	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	519	0
Germany, FR (W)	0	0	0	0	0	0	58	0	0
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	0	2	0	0	0	0	0
Guatemala	0	0	0	131	33	0	195	0	1
Honduras	0	0	0	0	0	0	0	0	1
Hong Kong	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	24	0	(s)	0	(s)
Italy	0	0	1	0	0	0	0	0	(s)
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	1	11	0	0	0	110	444	(s)
Japan	0	0	6	268	145	0	450	525	24
Korea, Republic of	0	0	0	(s)	0	0	0	379	24
Kuwait	0	0	0	0	0	0	0	0	0
Lebanon	0	0	0	0	0	0	0	0	3
Liberia	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	(s)	0	(s)
Mexico	0	16	455	234	0	1	8	1,229	2
Netherlands	0	0	0	0	0	0	18	0	0
Netherlands Antilles	0	0	0	0	0	0	(s)	0	0
New Zealand	0	0	0	0	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	1	(s)	0	12	0	175	240	0
Peru	0	0	(s)	0	75	0	0	0	(s)
Philippines	0	0	1	0	0	0	0	0	0
Puerto Rico	0	0	36	24	0	1	126	1	5
Saudi Arabia	0	0	(s)	0	0	0	1	5	0
Singapore	0	0	0	97	0	0	91	464	(s)
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	20
Suriname	0	0	18	0	0	0	0	0	0
Sweden	0	1	0	0	0	(s)	0	0	0
Switzerland	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	1	0	1
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	(s)	1	0	0	(s)	0	(s)
U.S.S.R.	0	0	0	0	0	0	0	25	0
Uruguay	0	0	0	15	0	0	0	0	0
Venezuela	0	0	0	0	0	0	921	0	5
Virgin Islands	1,777	0	(s)	0	0	0	1	0	0
Yugoslavia	0	0	0	0	0	0	0	0	17
Other	0	0	0	3	30	1	13	127	(s)
Total	**1,885**	**42**	**966**	**893**	**918**	**10**	**2,785**	**7,528**	**153**

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, October 1989 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	148	0	1	(s)	0	0	0	150	5
Australia	0	1	5	(s)	374	(s)	(s)	395	13
Bahama Islands	0	0	3	0	0	(s)	(s)	660	21
Bahrain	0	0	(s)	0	61	0	0	61	2
Belgium & Luxembourg	0	199	4	(s)	338	(s)	(s)	542	17
Brazil	0	1	8	(s)	62	0	0	71	2
Cameroon	0	0	0	0	37	0	0	37	1
Canada	12	31	93	5	1,504	34	8	4,585	148
Chile	0	0	28	0	1	0	(s)	29	1
China, Taiwan	0	0	43	(s)	1	0	4	1,782	57
Colombia	0	0	15	(s)	0	(s)	(s)	16	1
Costa Rica	0	0	4	(s)	0	0	(s)	17	1
Denmark	0	0	(s)	(s)	0	0	0	(s)	(s)
Dominican Republic	0	(s)	2	(s)	0	0	(s)	200	6
Ecuador	0	(s)	(s)	(s)	0	0	(s)	2	(s)
Egypt	0	0	0	0	136	0	0	136	4
El Salvador	0	0	1	(s)	0	0	(s)	11	(s)
Finland	0	0	(s)	(s)	0	0	0	(s)	(s)
France	140	0	1	4	378	2	(s)	525	17
French Pacific Islands	0	0	(s)	0	0	0	0	519	17
Germany, FR (W)	6	(s)	2	3	0	3	(s)	72	2
Ghana	0	0	(s)	0	45	0	0	45	1
Greece	0	0	1	(s)	165	0	0	168	5
Guatemala	0	2	6	0	0	0	0	368	12
Honduras	0	(s)	9	1	0	0	1	12	(s)
Hong Kong	0	0	2	(s)	0	0	(s)	2	(s)
India	0	0	12	(s)	0	0	1	13	(s)
Indonesia	0	0	3	0	0	1	0	4	(s)
Israel	0	0	(s)	(s)	0	0	1	26	1
Italy	81	0	(s)	1	52	(s)	(s)	136	4
Ivory Coast	0	0	(s)	0	0	0	0	(s)	(s)
Jamaica	0	(s)	1	0	0	0	(s)	567	18
Japan	57	1	34	6	1,525	1	1	3,044	98
Korea, Republic of	201	(s)	4	(s)	1	0	(s)	610	20
Kuwait	0	0	(s)	0	0	0	(s)	1	(s)
Lebanon	0	0	(s)	0	101	0	0	105	3
Liberia	0	0	1	0	0	0	0	1	(s)
Malaysia	0	0	1	(s)	0	0	(s)	1	(s)
Mexico	0	3	93	17	58	7	4	2,127	69
Netherlands	236	0	1	1	616	0	4	876	28
Netherlands Antilles	0	0	(s)	0	0	0	(s)	1	(s)
New Zealand	0	0	4	1	121	0	(s)	127	4
Nigeria	0	0	(s)	0	0	0	(s)	1	(s)
Norway	0	0	0	(s)	225	0	0	225	7
Panama	0	0	2	0	0	0	(s)	431	14
Peru	(s)	0	29	0	0	0	(s)	104	3
Philippines	0	(s)	16	(s)	0	0	(s)	17	1
Puerto Rico	0	(s)	19	1	0	0	1	214	7
Saudi Arabia	0	0	8	0	0	0	(s)	14	(s)
Singapore	0	(s)	4	(s)	0	(s)	3	660	21
South Africa	0	0	0	(s)	46	0	(s)	46	1
Spain	80	0	1	(s)	1,151	0	(s)	1,252	40
Suriname	0	0	1	0	0	0	(s)	18	1
Sweden	0	0	1	(s)	0	0	(s)	2	(s)
Switzerland	0	0	1	0	0	0	0	1	(s)
Thailand	0	0	8	(s)	0	0	(s)	10	(s)
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	14	0	163	0	0	176	6
United Arab Emirates	0	0	1	0	53	0	0	54	2
United Kingdom	0	0	3	1	165	(s)	(s)	171	6
U.S.S.R.	0	0	7	0	0	0	0	32	1
Uruguay	0	0	1	0	0	0	0	16	1
Venezuela	0	0	5	(s)	110	0	(s)	1,042	34
Virgin Islands	0	0	(s)	0	0	0	0	1,778	57
Yugoslavia	0	0	0	0	0	0	0	17	1
Other	0	7	9	(s)	0	3	(s)	192	6
Total	**961**	**245**	**513**	**44**	**7,488**	**53**	**32**	**24,517**	**791**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-October 1989

(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	1	0	0	0	(s)	364	2
Australia	0	337	4	537	0	0	1,257	971	68
Bahama Islands	0	0	34	740	250	0	2,361	3,099	(s)
Bahrain	0	1	0	0	0	0	1	0	(s)
Belgium & Luxembourg	0	35	102	2	0	0	8	0	10
Brazil	0	0	1	1	0	0	492	0	15
Cameroon	0	0	0	0	0	0	0	0	0
Canada	2,210	283	3,166	1,387	1,455	48	4,064	5,146	56
Chile	0	3	2	123	0	5	658	330	4
China, Taiwan	900	43	9	23	0	1	2,074	13,553	45
Colombia	0	(s)	5	689	0	0	11	0	1
Costa Rica	0	(s)	1	114	10	0	307	0	8
Denmark	0	0	1	0	0	0	0	0	(s)
Dominican Republic	0	0	79	88	39	0	201	534	4
Ecuador	0	0	696	30	0	0	0	0	8
Egypt	0	14	1	0	0	0	7	0	(s)
El Salvador	0	0	17	61	25	0	147	1	2
Finland	0	3	0	0	0	(s)	(s)	0	0
France	0	0	4	0	0	0	4	0	8
French Pacific Islands	0	0	0	0	0	0	90	1,388	0
Germany, FR (W)	0	1	115	1	0	0	730	0	18
Ghana	0	0	0	0	0	0	0	1	0
Greece	0	0	9	2	0	0	1	0	(s)
Guatemala	0	0	244	1,355	117	27	1,293	84	5
Honduras	0	0	(s)	0	0	0	9	0	10
Hong Kong	0	2	1	0	0	0	1	0	1
India	0	0	(s)	0	0	0	1	0	111
Indonesia	0	(s)	(s)	0	0	0	(s)	0	(s)
Israel	0	0	17	0	703	0	(s)	231	1
Italy	0	0	185	0	0	1	(s)	312	1
Ivory Coast	0	0	0	0	0	0	0	0	0
Jamaica	0	3	87	125	0	54	644	4,078	(s)
Japan	0	19	63	1,461	3,553	(s)	4,098	6,911	363
Korea, Republic of	0	3	104	3	0	(s)	255	1,086	154
Kuwait	0	0	0	0	0	0	(s)	0	(s)
Lebanon	0	1	(s)	0	0	0	0	0	3
Liberia	0	0	(s)	(s)	0	0	(s)	0	0
Malaysia	0	0	0	0	0	0	10	0	2
Malta	0	(s)	0	0	0	0	0	0	0
Mexico	0	1,223	5,091	3,894	(s)	12	669	15,600	44
Netherlands	0	0	14	31	0	0	21	213	133
Netherlands Antilles	0	0	0	45	0	0	410	1,245	1
New Zealand	0	10	(s)	19	0	0	(s)	0	4
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	0	0	0	0	0	0	0
Panama	0	1	95	241	57	0	1,604	1,021	6
Peru	0	0	1	19	275	0	1,059	0	1
Philippines	0	0	4	0	0	0	(s)	0	1
Puerto Rico	3,125	87	145	1,336	1	3	830	10	122
Saudi Arabia	0	6	4	0	0	(s)	29	5	1
Singapore	0	(s)	(s)	97	0	(s)	411	4,656	14
South Africa	0	0	1	0	0	(s)	0	0	(s)
Spain	0	(s)	(s)	0	0	0	595	110	32
Suriname	0	0	82	0	0	0	0	0	0
Sweden	0	1	0	0	0	(s)	(s)	0	(s)
Switzerland	0	(s)	4	0	0	1	0	0	0
Thailand	0	(s)	2	0	0	0	2	0	14
Trinidad and Tobago	0	0	2	(s)	0	0	248	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	3	(s)	0	0	0	(s)	0	22
United Kingdom	0	3	49	24	3	0	3	338	1
U.S.S.R.	0	0	0	0	0	0	0	25	11
Uruguay	0	0	(s)	15	0	0	377	0	0
Venezuela	0	0	5	22	0	0	1,824	0	18
Virgin Islands	34,207	0	(s)	16	0	(s)	71	0	(s)
Yugoslavia	0	0	0	0	0	0	0	0	34
Other	0	11	36	96	36	3	639	270	4
Total	**40,442**	**2,096**	**10,488**	**12,599**	**6,523**	**155**	**27,520**	**61,579**	**1,363**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-October 1989 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	148	(s)	15	1	(s)	(s)	(s)	531	2
Australia	50	3	57	5	3,235	2	2	6,529	21
Bahama Islands	0	0	35	(s)	0	11	(s)	6,531	21
Bahrain	0	(s)	1	0	281	0	(s)	284	1
Belgium & Luxembourg	0	389	145	3	6,475	5	1	7,173	24
Brazil	0	1	94	(s)	609	(s)	1	1,214	4
Cameroon	0	0	(s)	0	150	0	0	150	(s)
Canada	326	570	942	48	4,981	860	224	25,767	85
Chile	0	3	176	2	7	(s)	2	1,315	4
China, Taiwan	0	3	318	10	85	1	26	17,090	56
Colombia	0	(s)	74	2	4	1	2	789	3
Costa Rica	0	10	80	1	0	0	4	534	2
Denmark	0	2	1	(s)	509	1	(s)	515	2
Dominican Republic	0	3	44	1	1	(s)	1	995	3
Ecuador	0	1	9	2	0	1	(s)	746	2
Egypt	0	(s)	20	0	136	(s)	(s)	178	1
El Salvador	0	1	16	(s)	(s)	0	1	272	1
Finland	0	(s)	12	(s)	303	0	(s)	319	1
France	1,045	241	17	80	2,047	13	2	3,460	11
French Pacific Islands	0	0	5	0	0	0	(s)	1,483	5
Germany, FR (W)	6	6	48	26	573	36	5	1,567	5
Ghana	0	0	2	(s)	322	(s)	0	324	1
Greece	0	1	47	(s)	991	0	(s)	1,051	3
Guatemala	0	18	117	1	1	(s)	1	3,263	11
Honduras	0	5	48	2	0	(s)	2	77	(s)
Hong Kong	0	(s)	12	3	(s)	(s)	1	22	(s)
India	93	1	192	3	(s)	6	4	411	1
Indonesia	0	(s)	19	(s)	209	1	(s)	230	1
Israel	0	9	23	(s)	440	0	2	1,426	5
Italy	1,033	(s)	9	7	8,761	3	2	10,315	34
Ivory Coast	0	0	14	0	0	(s)	(s)	14	(s)
Jamaica	0	2	46	(s)	25	(s)	2	5,068	17
Japan	1,070	434	391	48	16,174	13	18	34,617	114
Korea, Republic of	1,104	1	133	11	856	1	6	3,716	12
Kuwait	0	(s)	8	(s)	0	0	(s)	8	(s)
Lebanon	0	0	6	(s)	131	0	(s)	142	(s)
Liberia	0	0	3	(s)	0	0	(s)	4	(s)
Malaysia	82	2	8	4	18	0	1	127	(s)
Malta	0	0	0	0	0	0	0	(s)	(s)
Mexico	(s)	31	841	158	637	42	25	28,268	93
Netherlands	600	1,127	70	11	7,782	5	35	10,043	33
Netherlands Antilles	0	0	10	0	0	0	1	1,711	6
New Zealand	0	(s)	23	4	513	(s)	(s)	574	2
Nigeria	0	0	9	(s)	0	0	7	17	(s)
Norway	0	0	6	(s)	1,008	(s)	(s)	1,015	3
Panama	0	5	133	(s)	0	1	1	3,165	10
Peru	(s)	1	90	(s)	(s)	(s)	1	1,448	5
Philippines	122	1	70	1	(s)	0	2	200	1
Puerto Rico	0	211	195	15	10	(s)	10	6,101	20
Saudi Arabia	0	13	72	(s)	7	0	2	139	(s)
Singapore	54	2	47	1	28	6	8	5,325	18
South Africa	0	(s)	8	(s)	353	1	(s)	364	1
Spain	399	224	39	20	7,813	2	1	9,236	30
Suriname	0	(s)	4	0	0	0	(s)	86	(s)
Sweden	0	0	12	2	225	(s)	1	241	1
Switzerland	0	5	6	(s)	137	(s)	1	155	1
Thailand	333	(s)	26	1	0	(s)	5	383	1
Trinidad and Tobago	0	0	1	(s)	0	1	1	253	1
Turkey	0	(s)	27	(s)	617	0	(s)	644	2
United Arab Emirates	0	1	13	0	403	(s)	(s)	442	1
United Kingdom	90	5	19	8	2,192	10	35	2,779	9
U.S.S.R.	0	1	236	0	295	3	4	575	2
Uruguay	0	0	9	(s)	0	0	(s)	402	1
Venezuela	0	3	33	5	635	1	1	2,547	8
Virgin Islands	0	(s)	1	0	0	0	0	34,296	113
Yugoslavia	0	(s)	(s)	(s)	285	3	0	322	1
Other	30	16	127	11	815	43	6	2,143	7
Total	**6,586**	**3,352**	**5,316**	**499**	**71,079**	**1,078**	**458**	**251,133**	826

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, October 1989

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Product
Arab OPEC	**1,819**	**19**	**55**	**9**	**4**	**42**	**-2**	**(s)**	**168**	**296**	**2,115**
Algeria	74	19	0	0	0	33	0	0	120	172	246
Iraq	495	0	0	0	0	0	0	(s)	14	14	509
Kuwait	191	0	0	0	0	0	0	(s)	(s)	(s)	191
Qatar	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Saudi Arabia	1,047	(s)	55	9	4	9	0	(s)	34	111	1,158
United Arab Emirates	14	0	0	0	0	0	-2	(s)	0	-2	12
Other OPEC	**1,571**	**3**	**107**	**33**	**90**	**130**	**-4**	**(s)**	**79**	**438**	**2,009**
Ecuador	105	0	0	0	0	12	0	(s)	(s)	12	117
Gabon	50	0	0	0	0	0	0	(s)	0	(s)	50
Indonesia	130	0	0	0	0	31	0	(s)	6	37	167
Nigeria	694	0	0	0	0	18	0	(s)	(s)	18	713
Venezuela	592	3	107	33	90	69	-4	(s)	73	371	963
Non OPEC	**2,727**	**124**	**174**	**-3**	**70**	**160**	**-235**	**-7**	**316**	**599**	**3,326**
Angola	335	0	0	0	0	0	0	0	0	0	335
Argentina	0	0	16	0	0	0	0	(s)	-1	16	16
Australia	53	(s)	0	0	(s)	5	-12	(s)	(s)	-8	45
Bahama Islands	0	(s)	-2	-1	-8	34	0	(s)	(s)	22	22
Belgium & Luxembourg	0	0	0	0	(s)	10	-11	(s)	9	9	9
Brazil	0	0	55	0	0	11	-2	(s)	(s)	64	64
Cameroon	129	0	0	0	0	11	-1	0	0	10	139
Canada	578	106	28	-14	48	-23	-47	-1	18	114	691
China, People's Republic of	84	0	0	0	0	0	0	1	1	2	85
China, Taiwan	0	(s)	-1	0	(s)	-55	(s)	-1	(s)	-57	-57
Colombia	116	(s)	0	0	0	30	0	(s)	(s)	30	146
Congo	43	0	0	0	0	5	0	0	0	5	49
Egypt	19	0	0	0	0	0	-4	0	(s)	-4	15
Finland	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
France	0	(s)	18	0	0	0	-12	(s)	-4	2	2
Greece	0	0	(s)	0	0	10	-5	(s)	(s)	5	5
Guatemala	7	0	-4	-1	-6	0	0	(s)	(s)	-12	-5
India	6	0	0	0	0	0	0	(s)	18	18	23
Italy	0	(s)	9	0	0	8	-2	(s)	54	69	69
Jamaica	0	(s)	0	0	-4	-14	0	(s)	(s)	-18	-18
Japan	0	(s)	-9	-5	-15	-17	-49	-1	-3	-98	-98
Korea, Republic of	0	0	(s)	0	0	-12	(s)	(s)	-1	-14	-14
Malaysia	28	0	0	0	(s)	0	0	(s)	(s)	(s)	28
Mexico	760	19	-8	10	20	-31	-2	-3	-1	5	764
Netherlands	0	0	13	0	-1	11	-20	(s)	12	15	15
Netherlands Antilles	0	0	16	3	(s)	20	0	(s)	(s)	38	38
Norway	143	0	9	0	0	6	-7	0	9	16	158
Oman	31	0	0	0	0	0	0	(s)	0	(s)	31
Panama	0	(s)	0	(s)	-6	-8	0	(s)	(s)	-14	-14
Peru	0	(s)	0	-2	0	22	0	-1	(s)	19	19
Puerto Rico	0	-1	-1	0	-4	(s)	0	6	25	25	25
Romania	0	0	0	0	0	0	0	0	36	36	36
Singapore	0	0	-3	4	-3	12	0	(s)	(s)	10	10
Spain	0	0	31	0	0	0	-37	(s)	4	-3	-3
Syria	33	0	0	0	0	0	0	0	0	0	33
Thailand	6	0	0	0	(s)	0	0	(s)	(s)	(s)	6
Trinidad and Tobago	71	0	0	0	0	0	0	(s)	(s)	(s)	71
United Kingdom	234	(s)	8	0	(s)	59	-5	(s)	6	68	301
U.S.S.R.	0	0	0	0	0	11	0	(s)	54	65	65
Virgin Islands	-57	(s)	0	7	50	82	0	(s)	41	180	122
Zaire	21	0	0	0	0	0	0	0	0	0	21
Other	87	1	-1	-2	-2	-27	-17	-3	39	-13	74
Total	**6,117**	**146**	**336**	**40**	**164**	**332**	**-240**	**-8**	**563**	**1,333**	**7,450**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-October 1989
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,804**	**29**	**37**	**9**	**15**	**46**	**-1**	**(s)**	**193**	326	2,130
Algeria	59	23	1	0	11	42	0	(s)	123	199	258
Iraq	445	0	0	0	0	0	0	(s)	9	9	455
Kuwait	160	2	0	1	(s)	0	0	(s)	(s)	3	162
Qatar	3	0	0	0	0	0	0	(s)	(s)	(s)	3
Saudi Arabia	1,112	1	37	8	4	4	(s)	(s)	57	110	1,223
United Arab Emirates	25	3	0	0	(s)	0	-1	(s)	3	5	30
Other OPEC	**1,543**	**6**	**75**	**30**	**96**	**121**	**-3**	**(s)**	**85**	410	1,952
Ecuador	88	-2	(s)	0	0	8	0	(s)	(s)	5	93
Gabon	40	0	0	0	0	1	0	(s)	0	1	41
Indonesia	146	(s)	0	0	(s)	16	-1	(s)	7	22	168
Nigeria	786	0	0	0	1	11	0	(s)	2	13	800
Venezuela	483	8	75	30	95	86	-2	(s)	76	368	851
Non OPEC	**2,328**	**107**	**213**	**42**	**99**	**248**	**-229**	**-6**	**284**	758	3,086
Angola	267	0	0	0	0	4	0	(s)	0	4	271
Argentina	10	(s)	4	0	1	5	(s)	(s)	2	13	22
Australia	28	(s)	-1	0	-4	-1	-11	(s)	-2	-18	10
Bahama Islands	0	(s)	-2	-1	-7	22	0	(s)	(s)	11	11
Belgium & Luxembourg	0	(s)	2	0	2	3	-21	(s)	7	-7	-7
Brazil	0	1	52	0	5	24	-2	(s)	2	82	82
Cameroon	42	0	0	0	0	8	(s)	(s)	0	7	50
Canada	611	100	42	5	48	11	-16	-1	24	212	823
China, People's Republic of	73	0	4	0	-1	0	-2	(s)	(s)	3	75
China, Taiwan	-3	(s)	(s)	0	-7	-45	(s)	-1	(s)	-53	-56
Colombia	125	(s)	-2	0	1	34	(s)	(s)	1	34	159
Congo	11	0	0	0	0	4	0	(s)	0	4	15
Egypt	11	(s)	0	0	(s)	0	(s)	(s)	4	3	14
Finland	0	0	0	0	(s)	0	-1	(s)	(s)	-1	-1
France	0	1	9	0	(s)	3	-7	(s)	-2	4	4
Greece	0	(s)	3	2	(s)	9	-3	(s)	1	11	11
Guatemala	2	-1	-4	(s)	-4	(s)	(s)	(s)	(s)	-11	-9
India	1	(s)	0	0	(s)	0	(s)	-1	34	33	34
Italy	3	(s)	12	0	(s)	2	-29	(s)	11	-5	-2
Jamaica	0	(s)	(s)	0	-2	-13	(s)	(s)	(s)	-17	-17
Japan	0	1	-5	-10	-13	-23	-53	-1	-6	-110	-110
Korea, Republic of	0	(s)	(s)	1	(s)	-4	-3	(s)	-2	-9	-9
Malaysia	33	0	0	0	(s)	0	(s)	(s)	(s)	(s)	33
Mexico	729	6	-13	11	2	-42	-2	-3	-1	-41	688
Netherlands	0	(s)	26	0	1	7	-26	(s)	7	16	16
Netherlands Antilles	0	0	6	(s)	2	19	0	(s)	6	33	33
Norway	131	0	1	0	0	7	-3	(s)	2	6	138
Oman	22	0	0	0	(s)	0	0	(s)	1	1	23
Panama	0	(s)	-1	(s)	-5	-2	0	(s)	(s)	-9	-9
Peru	1	(s)	(s)	-1	-3	29	(s)	(s)	2	27	28
Puerto Rico	-10	(s)	-4	(s)	-3	(s)	(s)	8	22	22	12
Romania	0	0	5	0	1	2	0	(s)	16	25	25
Singapore	0	(s)	(s)	3	-1	-2	(s)	(s)	2	1	1
Spain	0	(s)	30	8	(s)	5	-26	(s)	17	34	34
Syria	11	0	0	0	0	3	0	0	2	6	17
Thailand	17	(s)	0	0	(s)	0	0	(s)	-1	-1	15
Trinidad and Tobago	74	(s)	(s)	2	3	14	0	(s)	1	19	93
United Kingdom	175	2	15	(s)	10	31	-7	(s)	2	52	227
U.S.S.R.	0	0	0	0	11	6	-1	-1	36	51	51
Virgin Islands	-113	(s)	34	25	62	117	0	(s)	81	319	206
Zaire	26	0	0	0	0	(s)	0	(s)	(s)	(s)	26
Other	50	(s)	2	-3	1	9	-16	-2	17	9	59
Total	**5,674**	**142**	**326**	**81**	**210**	**414**	**-233**	**-6**	**561**	**1,494**	**7,169**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, October 1989
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	**14,795**	**73,889**	**736,682**	**12,115**	**76,950**	**914,431**
Refinery	13,413	13,611	45,768	1,978	23,929	98,699
Tank Farms and Pipelines	1,344	58,803	96,001	9,059	30,775	195,982
Leases	38	1,475	16,642	1,078	1,350	20,583
Strategic Petroleum Reserve[a]	0	0	578,271	0	0	578,271
Alaskan In Transit	0	0	0	0	20,896	20,896
Total Stocks, All Oils (excluding Crude Oil)	**189,867**	**169,387**	**280,412**	**15,651**	**93,673**	**748,990**
Refinery	50,438	61,644	149,378	10,229	62,383	334,072
Bulk Terminal	111,628	69,117	83,367	2,810	25,783	292,705
Pipeline	27,512	36,538	41,722	2,361	5,455	113,588
Natural Gas Processing Plant	289	2,088	5,945	251	52	8,625
Pentanes Plus	**127**	**3,330**	**5,979**	**186**	**68**	**9,690**
Refinery	14	426	726	2	22	1,190
Bulk Terminal	58	2,070	2,985	0	34	5,147
Pipeline	0	594	1,031	86	0	1,711
Natural Gas Processing Plant	55	240	1,237	98	12	1,642
Liquefied Petroleum Gases	**5,631**	**32,080**	**75,397**	**1,141**	**4,544**	**118,793**
Refinery	1,436	3,111	11,869	446	1,459	18,321
Bulk Terminal	1,971	20,084	52,443	119	3,045	77,662
Pipeline	1,990	7,037	6,377	423	0	15,827
Natural Gas Processing Plant	234	1,848	4,708	153	40	6,983
Ethane/Ethylene	**20**	**4,988**	**19,482**	**130**	**0**	**24,620**
Refinery	18	2	1,399	2	0	1,421
Bulk Terminal	2	3,313	14,593	0	0	17,908
Pipeline	0	1,246	2,349	125	0	3,720
Natural Gas Processing Plant	0	427	1,141	3	0	1,571
Propane/Propylene	**4,757**	**16,564**	**34,187**	**540**	**924**	**56,972**
Refinery	1,215	1,557	4,552	160	98	7,582
Bulk Terminal	1,548	10,758	25,534	119	801	38,760
Pipeline	1,833	3,367	2,581	159	0	7,940
Natural Gas Processing Plant	161	882	1,520	102	25	2,690
Normal Butane/Butylene	**797**	**7,802**	**15,885**	**308**	**3,155**	**27,947**
Refinery	158	1,155	4,391	174	1,115	6,993
Bulk Terminal	417	4,469	9,140	0	2,030	16,056
Pipeline	157	1,765	916	92	0	2,930
Natural Gas Processing Plant	65	413	1,438	42	10	1,968
Isobutane	**57**	**2,726**	**5,843**	**163**	**465**	**9,254**
Refinery	45	397	1,527	110	246	2,325
Bulk Terminal	4	1,544	3,176	0	214	4,938
Pipeline	0	659	531	47	0	1,237
Natural Gas Processing Plant	8	126	609	6	5	754
Other Hydrocarbons/Alcohol	**160**	**101**	**323**	**113**	**33**	**730**
Refinery	160	101	323	113	33	730
Unfinished Oils	**14,853**	**19,338**	**50,808**	**2,426**	**24,810**	**112,235**
Refinery						
Naphthas and Lighter	4,644	5,571	13,323	632	4,560	28,730
Kerosene and Light Gas Oils	2,889	2,207	9,859	251	3,067	18,273
Heavy Gas Oils	6,003	6,887	18,911	1,170	12,992	45,963
Residuum	1,317	4,673	8,715	373	4,191	19,269
Motor Gasoline Blending Components	**4,842**	**8,796**	**16,614**	**1,900**	**7,503**	**39,655**
Refinery	4,764	7,919	15,474	1,837	7,354	37,348
Bulk Terminal	78	710	1,074	63	9	1,934
Pipeline	0	167	66	0	140	373

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, October 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts I	II	III	IV	V	U. S. Total
Aviation Gasoline Blending Components	0	61	41	0	1	103
Refinery	0	61	41	0	1	103
Finished Motor Gasoline	58,719	50,527	47,187	4,482	22,780	183,695
Refinery	10,203	9,238	18,165	1,766	8,247	47,619
Bulk Terminal	35,097	24,031	10,870	1,660	12,148	83,806
Pipeline	13,419	17,258	18,152	1,056	2,385	52,270
Finished Leaded Motor Gasoline	1,648	6,723	3,407	1,674	5,868	19,320
Refinery	94	1,242	1,616	736	1,958	5,646
Bulk Terminal	1,258	2,903	916	596	3,503	9,176
Pipeline	296	2,578	875	342	407	4,498
Finished Unleaded Motor Gasoline	57,071	43,804	43,780	2,808	16,912	164,375
Refinery	10,109	7,996	16,549	1,030	6,289	41,973
Bulk Terminal	33,839	21,128	9,954	1,064	8,645	74,630
Pipeline	13,123	14,680	17,277	714	1,978	47,772
Finished Aviation Gasoline	281	499	799	57	544	2,180
Refinery	23	107	677	46	189	1,042
Bulk Terminal	258	329	121	11	355	1,074
Pipeline	0	63	1	0	0	64
Naphtha-Type Jet Fuel	936	973	2,027	403	1,916	6,255
Refinery	298	535	1,388	285	783	3,289
Bulk Terminal	293	187	135	0	483	1,098
Pipeline	345	251	504	118	650	1,868
Kerosene-Type Jet Fuel	11,583	8,367	17,219	733	6,271	44,173
Refinery	2,415	2,041	7,713	371	3,844	16,384
Bulk Terminal	4,433	3,443	2,095	172	1,575	11,718
Pipeline	4,735	2,883	7,411	190	852	16,071
Kerosene	3,335	1,973	1,991	57	164	7,520
Refinery	246	659	1,113	42	93	2,153
Bulk Terminal	2,821	1,057	300	15	55	4,248
Pipeline	268	257	578	0	16	1,119
Distillate Fuel Oil	51,741	28,663	27,504	2,548	10,990	121,446
Refinery	7,910	8,238	15,026	1,316	5,060	37,550
Bulk Terminal	37,076	12,410	5,150	744	4,819	60,199
Pipeline	6,755	8,015	7,328	488	1,111	23,697
Residual Fuel Oil[b]	25,233	3,344	14,343	477	7,963	51,360
Refinery	2,669	2,145	8,038	477	5,423	18,752
Bulk Terminal	22,564	1,199	6,305	0	2,355	32,423
Pipeline	0	0	0	0	185	185
Less than 0.31% Sulfur	6,101	209	1,620	38	813	8,781
Refinery	333	33	1,511	38	672	2,587
Bulk Terminal	5,768	176	109	0	141	6,194
0.31 to 1.00% Sulfur	10,779	774	3,897	225	826	16,501
Refinery	1,685	416	1,213	225	685	4,224
Bulk Terminal	9,094	358	2,684	0	141	12,277
Greater than 1.00% Sulfur	8,353	2,361	8,826	214	6,139	25,893
Refinery	651	1,696	5,314	214	4,066	11,941
Bulk Terminal	7,702	665	3,512	0	2,073	13,952
Naphtha for Petrochemical Feedstock Use	367	360	1,176	31	178	2,112
Refinery	367	360	1,176	31	178	2,112

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, October 1989 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	**7**	**0**	**1,790**	**1**	**176**	**1,974**
Refinery	7	0	1,790	1	176	1,974
Special Naphthas	**946**	**659**	**1,748**	**4**	**104**	**3,461**
Refinery	459	256	1,705	4	92	2,516
Bulk Terminal	487	403	43	0	12	945
Lubricants	**2,944**	**2,095**	**6,516**	**189**	**1,490**	**13,234**
Refinery	834	1,127	5,940	189	751	8,841
Bulk Terminal	2,110	968	576	0	739	4,393
Waxes	**46**	**93**	**473**	**43**	**221**	**876**
Refinery	46	93	473	43	221	876
Petroleum Coke	**961**	**2,742**	**2,973**	**1**	**2,002**	**8,679**
Refinery	961	2,742	2,973	1	2,002	8,679
Asphalt and Road Oil	**6,030**	**5,209**	**4,091**	**850**	**1,666**	**17,846**
Refinery	2,423	3,015	3,398	825	1,546	11,207
Bulk Terminal	3,607	2,194	693	25	120	6,639
Miscellaneous Products	**1,125**	**177**	**1,413**	**9**	**249**	**2,973**
Refinery	350	132	562	8	99	1,151
Bulk Terminal	775	32	577	1	34	1,419
Pipeline	0	13	274	0	116	403
Total Stocks, All Oils	**204,662**	**243,276**	**1,017,094**	**27,766**	**170,623**	**1,663,421**

[a] Includes 38,395 thousand barrels of domestic crude oil.
[b] Sulfur content not available for stocks held by pipelines.
Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 42. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, October 1989
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I	**1,352**	**43,948**	**3,067**	**44,986**	**25,233**
Connecticut	0	1,627	274	3,025	472
Delaware, D.C., Maryland	89	2,024	176	3,167	2,577
Florida	439	5,741	235	2,173	1,149
Georgia	198	2,509	78	1,021	385
Maine, New Hampshire, Vermont	18	1,309	320	2,535	426
Massachusetts	8	1,986	118	2,543	1,764
New Jersey	67	11,263	90	12,312	11,055
New York	43	4,255	348	6,773	4,455
North Carolina	232	2,474	270	1,648	480
Pennsylvania	29	5,337	680	5,301	1,421
Rhode Island	2	854	W	1,251	W
South Carolina	59	1,344	109	758	W
Virginia	154	2,993	238	2,408	521
West Virginia	14	232	W	71	W
PAD District II	**4,145**	**29,124**	**1,716**	**20,648**	**3,344**
Illinois	550	5,510	284	4,114	1,288
Indiana	274	3,771	190	2,320	498
Iowa	338	997	W	974	W
Kansas, Nebraska	944	2,611	15	1,845	44
Kentucky	40	1,500	83	563	W
Michigan	185	3,305	223	1,828	214
Minnesota	435	1,435	W	1,764	200
Missouri	335	927	W	651	W
North Dakota, South Dakota	217	665	W	627	W
Ohio	73	3,456	526	1,997	286
Oklahoma	438	1,300	W	1,605	244
Tennessee	121	1,966	62	900	283
Wisconsin	195	1,681	W	1,460	44
PAD District III	**2,532**	**26,503**	**1,413**	**20,176**	**14,343**
Alabama	84	1,583	98	922	670
Arkansas	23	471	W	298	W
Louisiana	346	4,990	444	4,703	5,628
Mississippi	178	2,303	30	1,830	W
New Mexico	180	306	W	178	33
Texas	1,721	16,850	835	12,245	7,829
PAD District IV	**1,332**	**2,094**	**57**	**2,060**	**477**
Colorado	378	698	W	318	W
Idaho	138	216	W	165	W
Montana	366	474	W	519	63
Utah	176	222	W	329	114
Wyoming	274	484	W	729	W
PAD District V	**5,461**	**14,934**	**148**	**9,879**	**7,778**
Alaska	225	560	W	1,036	W
Arizona	369	599	W	203	W
California	2,885	9,460	94	5,338	4,953
Hawaii	52	470	W	461	W
Nevada	127	287	W	144	W
Oregon	600	1,098	W	860	256
Washington	1,203	2,460	W	1,837	1,326
U.S. Total	**14,822**	**116,603**	**6,401**	**97,749**	**51,175**

W = Withheld to avoid disclosure of individual company data.
Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1989
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	0	0	0	90	2,434	578	0	433	48,779
Petroleum Products	7,383	296	0	2,328	4,834	1,794	0	84,816	28,466
Pentanes Plus	0	0	0	0	199	0	0	0	700
Liquefied Petroleum Gases	0	0	0	646	2,038	87	0	2,415	2,837
Unfinished Oils	0	0	0	0	0	0	0	210	73
Motor Gasoline Blending Components	30	110	0	118	0	0	0	77	58
Finished Motor Gasoline	4,719	0	0	947	1,677	939	0	47,607	15,525
Leaded	149	0	0	10	172	157	0	1,214	883
Unleaded	4,570	0	0	937	1,505	782	0	46,393	14,642
Finished Aviation Gasoline	13	0	0	0	0	17	0	117	59
Jet Fuel	326	0	0	75	165	574	0	12,717	2,849
Naphtha-Type	0	0	0	0	17	0	0	981	103
Kerosene-Type	326	0	0	75	148	574	0	11,736	2,746
Kerosene	74	0	0	42	0	0	0	709	34
Distillate Fuel Oil	2,179	0	0	170	440	177	0	18,102	5,182
Residual Fuel Oil	0	0	0	45	263	0	0	1,007	0
Petrochemical Feedstocks[a]	42	0	0	29	0	0	0	21	147
Special Naphthas	0	0	0	0	0	0	0	221	120
Lubricants	0	93	0	68	43	0	0	1,229	484
Waxes	0	0	0	0	0	0	0	22	0
Asphalt and Road Oil	0	65	0	188	0	0	0	292	398
Miscellaneous Products	0	28	0	0	9	0	0	70	0
Total	7,383	296	0	2,418	7,268	2,372	0	85,249	77,245

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	3,265	1,435	0	0	0	12,208	0
Petroleum Products	0	2,238	1,217	1,299	1,248	0	0	53	0
Pentanes Plus	0	0	104	148	0	0	0	0	0
Liquefied Petroleum Gases	0	0	370	1,151	0	0	0	0	0
Unfinished Oils	0	96	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,119	415	0	690	0	0	0	0
Leaded	0	191	87	0	366	0	0	0	0
Unleaded	0	928	328	0	324	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	710	45	0	170	0	0	0	0
Naphtha-Type	0	314	42	0	72	0	0	0	0
Kerosene-Type	0	396	3	0	98	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	313	283	0	388	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	53	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	0	2,238	4,482	2,734	1,248	0	0	12,261	0

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, October 1989

(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	35	2,434	578	0	48,779
Petroleum Products	7,216	0	1,102	4,528	1,794	67,401	23,286
Pentanes Plus	0	0	0	199	0	0	700
Liquefied Petroleum Gases	0	0	646	2,038	87	2,202	2,837
Motor Gasoline Blending Components	0	0	118	0	0	77	0
Finished Motor Gasoline	4,678	0	267	1,677	939	38,028	13,141
Leaded	149	0	0	172	157	936	732
Unleaded	4,529	0	267	1,505	782	37,092	12,409
Finished Aviation Gasoline	13	0	0	0	17	34	49
Jet Fuel	326	0	26	165	574	10,833	2,568
Naphtha-Type	0	0	0	17	0	425	103
Kerosene-Type	326	0	26	148	574	10,408	2,465
Kerosene	68	0	0	0	0	709	0
Distillate Fuel Oil	2,131	0	45	440	177	15,518	3,991
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	9	0	0	0
Total	7,216	0	1,137	6,962	2,372	67,401	72,065

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	3,265	1,435	0	3,027	0
Petroleum Products	0	1,675	1,217	1,299	1,248	0	0
Pentanes Plus	0	0	104	148	0	0	0
Liquefied Petroleum Gases	0	0	370	1,151	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	915	415	0	690	0	0
Leaded	0	191	87	0	366	0	0
Unleaded	0	724	328	0	324	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	447	45	0	170	0	0
Naphtha-Type	0	314	42	0	72	0	0
Kerosene-Type	0	133	3	0	98	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	313	283	0	388	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,675	4,482	2,734	1,248	3,027	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, October 1989
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	**0**	**0**	**0**	**55**	**0**	**0**	**433**	**0**
Petroleum Products	**167**	**296**	**0**	**1,226**	**306**	**0**	**17,415**	**213**
Liquefied Petroleum Gases	0	0	0	0	0	0	213	0
Unfinished Oils	0	0	0	0	0	0	210	0
Motor Gasoline Blending Components	30	110	0	0	0	0	0	0
Finished Motor Gasoline	41	0	0	680	0	0	9,579	0
Leaded	0	0	0	10	0	0	278	0
Unleaded	41	0	0	670	0	0	9,301	0
Finished Aviation Gasoline	0	0	0	0	0	0	83	0
Jet Fuel	0	0	0	49	0	0	1,884	213
Naphtha-Type	0	0	0	0	0	0	556	213
Kerosene-Type	0	0	0	49	0	0	1,328	0
Kerosene	6	0	0	42	0	0	0	0
Distillate Fuel Oil	48	0	0	125	0	0	2,584	0
Residual Fuel Oil	0	0	0	45	263	0	1,007	0
Less than 0.31 percent sulfur	0	0	0	29	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	16	263	0	1,007	0
Petrochemical Feedstocks[a]	42	0	0	29	0	0	21	0
Special Naphthas	0	0	0	0	0	0	221	0
Lubricants	0	93	0	68	43	0	1,229	0
Waxes	0	0	0	0	0	0	22	0
Asphalt and Road Oil	0	65	0	188	0	0	292	0
Miscellaneous Products	0	28	0	0	0	0	70	0
Total	**167**	**296**	**0**	**1,281**	**306**	**0**	**17,848**	**213**

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	**433**	**0**	**0**	**0**	**0**	**0**	9,181
Petroleum Products	**2,122**	**15,080**	**5,180**	**563**	**0**	**0**	**53**
Liquefied Petroleum Gases	0	213	0	0	0	0	0
Unfinished Oils	33	177	73	96	0	0	0
Motor Gasoline Blending Components	0	0	58	0	0	0	0
Finished Motor Gasoline	190	9,389	2,384	204	0	0	0
Leaded	0	278	151	0	0	0	0
Unleaded	190	9,111	2,233	204	0	0	0
Finished Aviation Gasoline	21	62	10	0	0	0	0
Jet Fuel	269	1,402	281	263	0	0	0
Naphtha-Type	0	343	0	0	0	0	0
Kerosene-Type	269	1,059	281	263	0	0	0
Kerosene	0	0	34	0	0	0	0
Distillate Fuel Oil	661	1,923	1,191	0	0	0	0
Residual Fuel Oil	228	779	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	228	779	0	0	0	0	0
Petrochemical Feedstocks[a]	0	21	147	0	0	0	0
Special Naphthas	95	126	120	0	0	0	0
Lubricants	538	691	484	0	0	0	53
Waxes	2	20	0	0	0	0	0
Asphalt and Road Oil	32	260	398	0	0	0	0
Miscellaneous Products	53	17	0	0	0	0	0
Total	**2,555**	**15,080**	**5,180**	**563**	**0**	**0**	9,234

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1989
(Thousand Barrels)

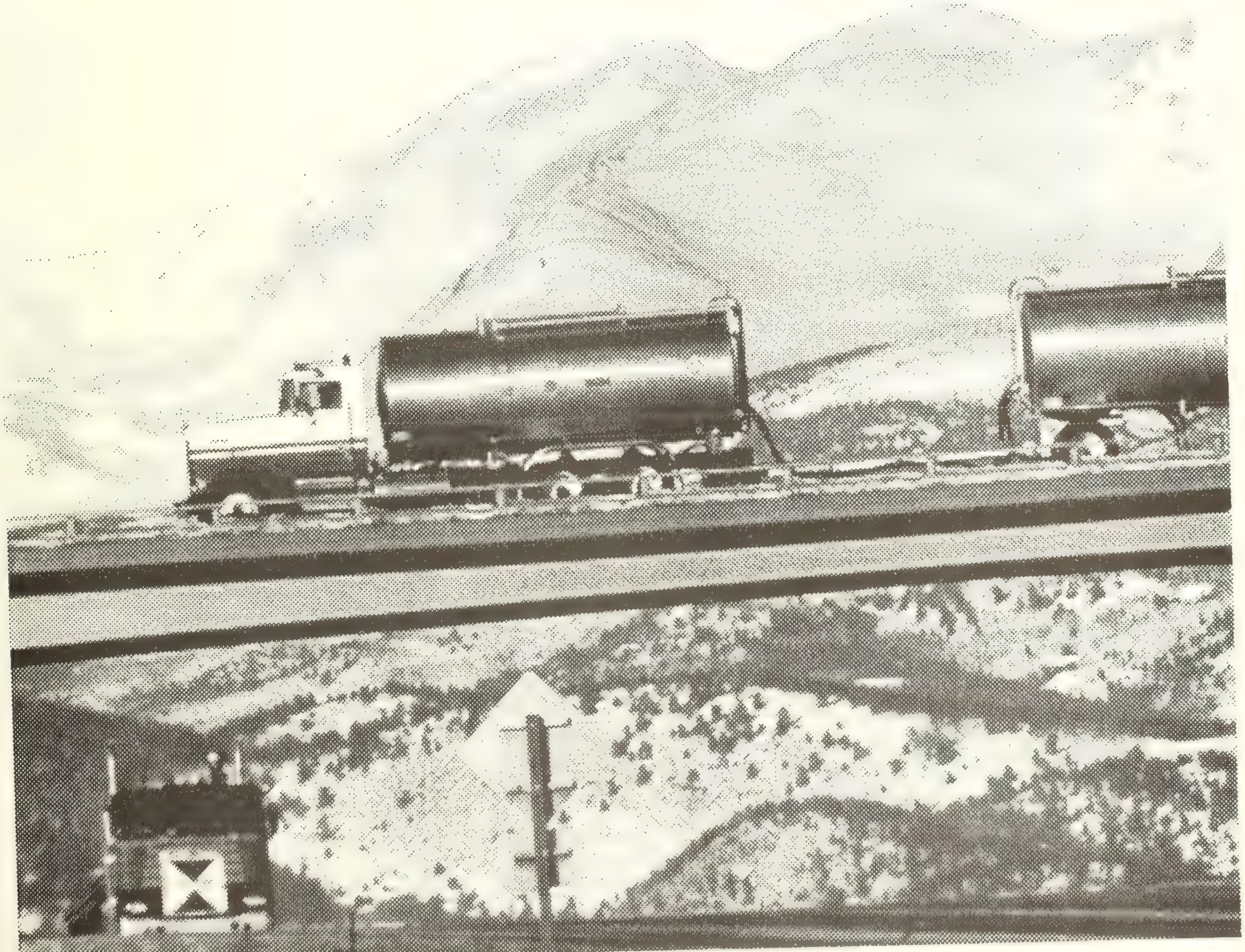
Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	523	0	523	52,044	3,102	48,942
Petroleum Products	87,144	7,679	79,465	37,066	8,956	28,110
Pentanes Plus	0	0	0	804	199	605
Liquefied Petroleum Gases	3,061	0	3,061	3,207	2,771	436
Ethane/Ethylene	0	0	0	326	1,002	-676
Propane/Propylene	3,035	0	3,035	1,935	1,403	532
Normal Butane/Butylene	0	0	0	356	274	82
Isobutane	26	0	26	590	92	498
Unfinished Oils	210	0	210	73	0	73
Motor Gasoline Blending Components	195	140	55	88	118	-30
Finished Motor Gasoline	48,554	4,719	43,835	20,659	3,563	17,096
Leaded	1,224	149	1,075	1,119	339	780
Unleaded	47,330	4,570	42,760	19,540	3,224	16,316
Finished Aviation Gasoline	117	13	104	72	17	55
Jet Fuel	12,792	326	12,466	3,220	814	2,406
Naphtha-Type	981	0	981	145	17	128
Kerosene-Type	11,811	326	11,485	3,075	797	2,278
Kerosene	751	74	677	108	42	66
Distillate Fuel Oil	18,272	2,179	16,093	7,644	787	6,857
Residual Fuel Oil	1,052	0	1,052	0	308	-308
Petrochemical Feedstocks[a]	50	42	8	189	29	160
Special Naphthas	221	0	221	120	0	120
Lubricants	1,297	93	1,204	484	111	373
Waxes	22	0	22	0	0	0
Asphalt and Road Oil	480	65	415	398	188	210
Miscellaneous Products	70	28	42	0	9	-9
Total	87,667	7,679	79,988	89,110	12,058	77,052

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	16,077	49,212	-33,135	578	4,700	-4,122	0	12,208	-12,208
Petroleum Products	6,482	115,520	-109,038	1,794	3,764	-1,970	3,486	53	3,433
Pentanes Plus	347	700	-353	0	252	-252	0	0	0
Liquefied Petroleum Gases	3,189	5,252	-2,063	87	1,521	-1,434	0	0	0
Ethane/Ethylene	1,484	245	1,239	0	563	-563	0	0	0
Propane/Propylene	1,058	4,221	-3,163	86	490	-404	0	0	0
Normal Butane/Butylene	445	243	202	1	285	-284	0	0	0
Isobutane	202	543	-341	0	183	-183	0	0	0
Unfinished Oils	0	379	-379	0	0	0	96	0	96
Motor Gasoline Blending Components	110	135	-25	0	0	0	0	0	0
Finished Motor Gasoline	1,677	64,251	-62,574	939	1,105	-166	1,809	0	1,809
Leaded	172	2,288	-2,116	157	453	-296	557	0	557
Unleaded	1,505	61,963	-60,458	782	652	130	1,252	0	1,252
Finished Aviation Gasoline	0	176	-176	17	0	17	0	0	0
Jet Fuel	165	16,276	-16,111	574	215	359	880	0	880
Naphtha-Type	17	1,398	-1,381	0	114	-114	386	0	386
Kerosene-Type	148	14,878	-14,730	574	101	473	494	0	494
Kerosene	0	743	-743	0	0	0	0	0	0
Distillate Fuel Oil	440	23,597	-23,157	177	671	-494	701	0	701
Residual Fuel Oil	263	1,007	-744	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	168	-168	0	0	0	0	0	0
Special Naphthas	0	341	-341	0	0	0	0	53	-53
Lubricants	189	1,713	-1,524	0	0	0	0	0	0
Waxes	0	22	-22	0	0	0	0	0	0
Asphalt and Road Oil	65	690	-625	0	0	0	0	0	0
Miscellaneous Products	37	70	-33	0	0	0	0	0	0
Total	22,559	164,732	-142,173	2,372	8,464	-6,092	3,486	12,261	-8,775

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

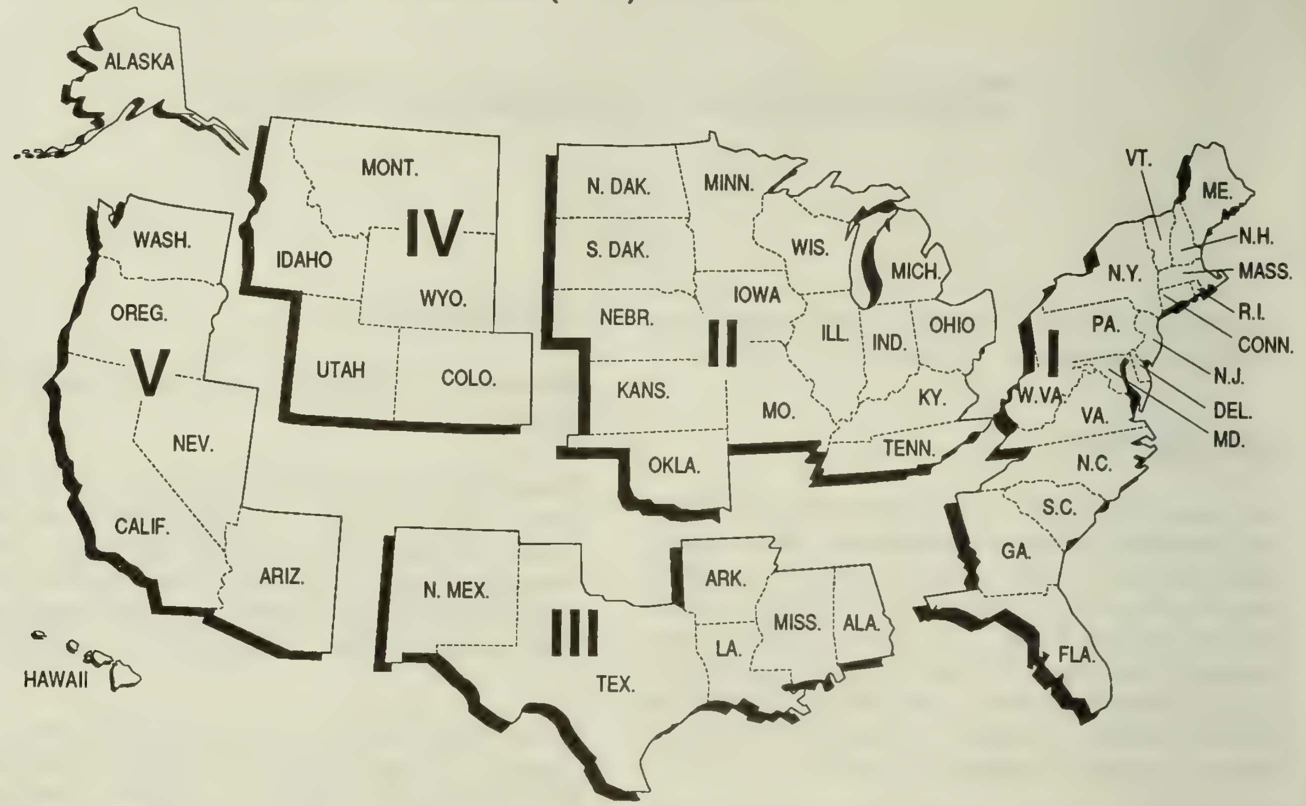
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

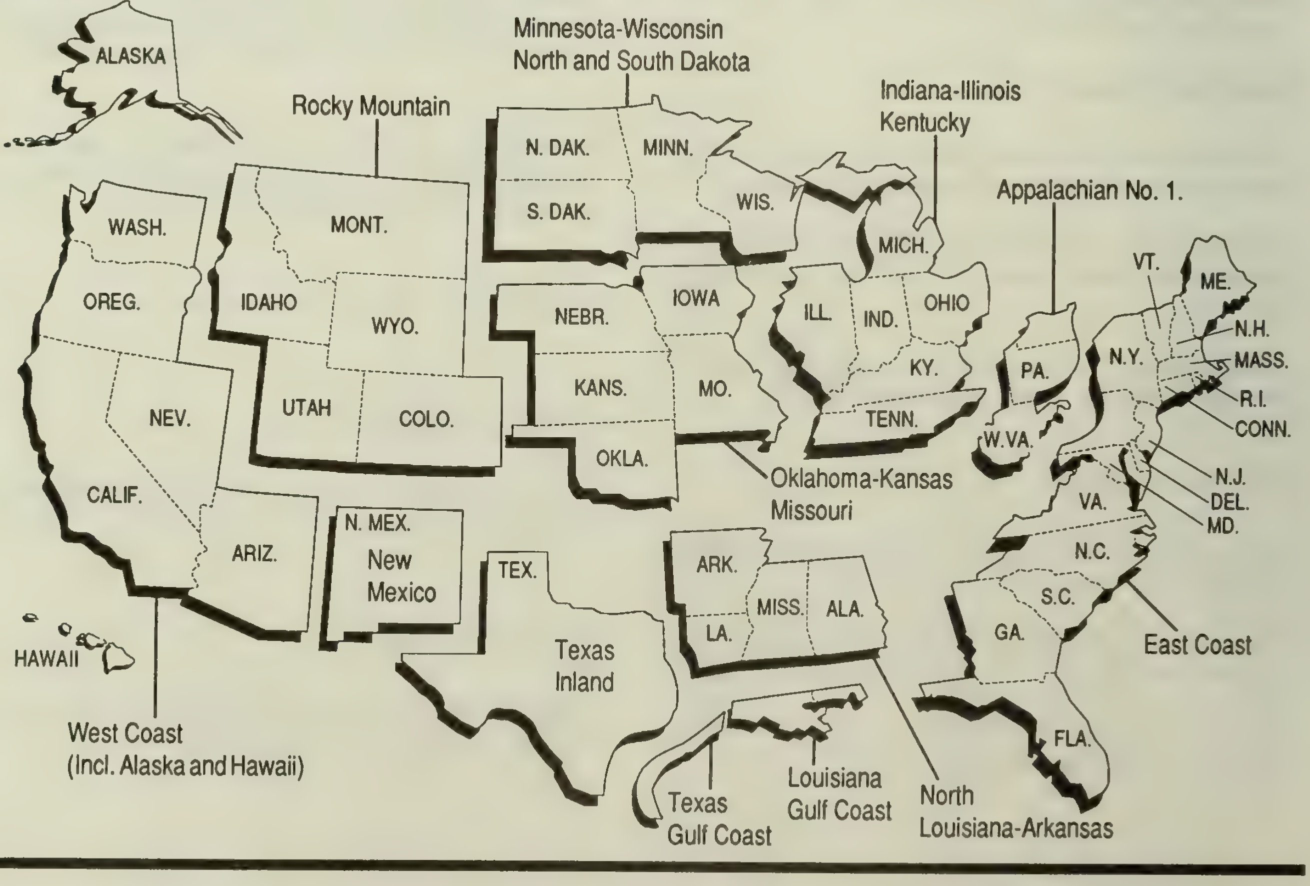
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

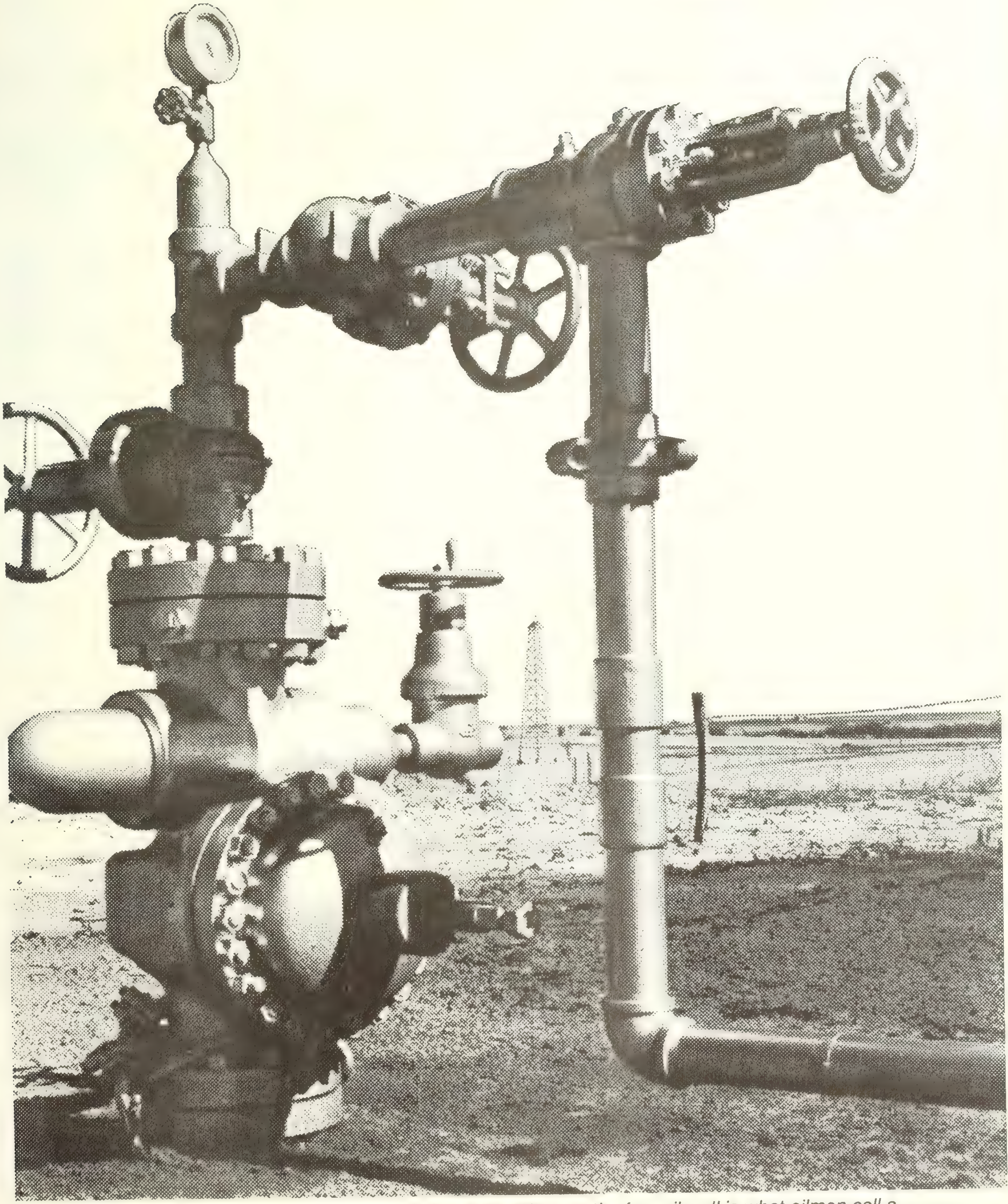


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Appendix B

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*
EIA-820	*Annual Refinery Report*

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report*.

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes I and II.

Summary information on the revision error between preliminary and final data can be found in the feature article entitled, "Timeliness and Accuracy of Petroleum Supply Data" last published in the *PSM* in April 1987. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report*, collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume I .

Note 3. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possesions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possesions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possesions, and (3) from Puerto Rico, the Virgin Islands and other U.S. possesions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or petroleum products transported by tanker or barge between PAD Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report*.

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. territories, and (3) from Puerto Rico, the Virgin Islands, and U.S. territories into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of processing facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and stocks located at fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Survey forms can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the FEA Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy (DOE) regulations implementing the FOIA, and the Trade Secrets Act, 18 U.S.C.§ 1905. The information contained on Form EIA-814 is not considered confidential.

Note 4. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are :

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and monthly systems -- the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e.,stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figures, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days betweeen the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System(WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables:

- **Table S1. Crude Oil and Petroleum Products Overview**

The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

Except where otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided depicting the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure		Figure Source
Figure S1.	Petroleum Overview	Table S1
Figure S2.	Petroleum Products Supplied	Table S1
Figure S3.	Crude Oil Supply and Disposition	Table S2
Figure S4.	Crude Oil Ending Stocks	Table S2
Figure S5.	Finished Motor Gasoline Supply and Disposition	Table S4
Figure S6.	Motor Gasoline Ending Stocks	Table S4
Figure S7.	Distillate Fuel Oil Supply and Disposition	Table S5
Figure S8.	Distillate Fuel Oil Ending Stocks	Table S5
Figure S9.	Residual Fuel Oil Supply and Disposition	Table S6
Figure S10.	Residual Fuel Oil Ending Stocks	Table S6
Figure S11.	Liquefied Petroleum Gases Supply and Disposition	Table S7
Figure S12.	Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline,distillate fuel oil, residual fuel oil , and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau fo the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month form the reported inventory levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonlized. The average of the deseasonalized 36-month series dertermines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current month. The tables are organized to locate National and PAD District summary data for the current month at the front. These tables are followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The sources of data for each table are described below:

Column and row headings are defined in the Glossary. The table, form or other source for items of each table, are explained below.

- **Table 1** - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).
  - Lines (1) through (3): Crude Oil Field Production for Alaska, Lower 48 states and Total U.S. are calculated according to Explanatory Note 8.
  - Line (4): Crude Oil Imports excluding Strategic Petroleum Reserve (SPR) reported on Form EIA-814.
  - Line (5): SPR Imports are reported on Form EIA-814.
  - Line (6): Exports of crude oil taken from Census tapes and data reported on Form EIA-810 for U.S. territories.
  - Line (7): Sum of lines (4) through (6).
  - Line (8): The difference between the previous month and current month ending stocks held in the SPR.
  - Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
  - Line (10): The sum of Crude Oil Products Supplied and Crude Losses as shown in Table 2.
  - Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
  - Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
  - Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
  - Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
  - Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.
  - Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.
  - Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).
  - Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (19): The sum of unfinished oils and motor and aviation gasoline blending components imports reported on Form EIA-814.
- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.
- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.
- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.
- Line (23): Total Other Liquids equals the sum of lines (18) through (22).
- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).
- Line (25): Gross Imports of Refined Products equals imports of LPG plus imports of finished petroleum products as shown in Table 2.
- Line (26): Exports of Refined Products equals exports of LPG plus exports of finished petroleum products as shown in Table 2.
- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).
- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).
- Line (29): Refined Products Stock Change equals the sum of stock change for LPG and finished petroleum products in Table 2.
- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.
- Lines (31) through (34): Equal the respective products supplied of same in Table 2.
- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.
- Line (37): Total Products Supplied is equal to total products supplied in Table 2.
- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude oil in Table 2.
- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.
- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.
- Line (44): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviatin gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on historical statistics from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 8 for further detail.

Field production of natural gas plant liquids are reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and appear on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report.* Refinery production of other hydrocarbons/hydrogen and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report.*

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report,* as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report,* that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report.* Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report.* Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report,* by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. These data are reported on Form EIA-813, *Monthly Crude Oil Report.* Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.

- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.

- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.

- **Tables 6-15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.

- **Table 16** - State conservation agencies and U. S. Minerals Management Service of the U.S. Department of the Interior. See Explanatory Note 8.

  Table 16 provides estimates of crude oil production for ths latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report.*

  Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report.*

- **Table 19** - Form EIA-810, *Monthly Refinery Report.*

  Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*

- **Table 21** - Calculated from Tables 18 and 19.

  To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

  To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

  To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline) the following calculation is performed. Production for each product's net refinery production listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*

- **Tables 35 through 38** - Census export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*

- **Table 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594), and Form EIA-810, *Monthly Refinery Report.*

  A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41**- Primary stocks of crude oil are the sum of ending stocks reported monthly on the Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum product are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42**- Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report*. Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.
- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*. After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports of the various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.
- The intitial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.
- The final estimate is published in the *PSA*.

Note 9. Export Data Source

Background

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month

Date of Data Availability	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89
	Reported State Data[c]																	
8-14-88	0																	
9-14-88	2032	0																
10-14-88	5083	2128	0															
11-14-88	7710	5081	2105	0														
12-14-88	7775	7808	4957	2098	0													
1-14-89	7776	7809	7231	4770	2051	0												
2-14-89	7859	7901	7651	7296	4887	2086	0											
3-14-89	7896	7936	7741	7731	7320	5083	2016	0										
4-14-89	8032	8071	7851	7980	7892	7370	4260	2047	0									
5-14-89	8039	8079	7893	7987	7988	7817	7063	2396	1755	0								
6-14-89	8039	8079	7893	8021	8021	7941	7199	6171	2373	1987	0							
7-14-89	8043	8080	7892	8023	8026	7956	7748	7032	6858	4279	2048	0						
8-14-89	8043	8080	7892	8023	8026	7957	7748	7644	6969	6290	4565	1930	0					
9-14-89	8045	8084	7896	8028	8030	7966	7783	7650	7437	7193	6423	2748	1789	0				
10-14-89	8045	8091	7903	8028	8033	7971	7816	7683	7472	7630	7211	7008	4491	1939	0			
11-14-89	8045	8091	7903	8028	8033	7971	7816	7683	7472	7665	7663	7023	6825	4796	1974	0		
12-14-89	8045	8091	7903	8028	8033	7971	7816	7683	7473	7665	7703	7479	6876	6960	4639	1960	0	0
	Producing States Without Reported Monthly Production[d]																	
12-14-89	0	0	0	0	0	0	5	5	5	5	5	6	7	7	17	27	33	33

	7-88	8-88	9-88	10-88	11-88	12-88	1-89	2-89	3-89	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89
	Production Estimate																	
Original[e]	8189	8128	8147	8085	8026	8035	8021	7965	7645	7786	7843	7726	7622	7662	7641	7644	7601	7565
Interim[f]	8059	8063	7900	7974	7985	7975	7913	7830	7610	7747	7807	7660	7474	7589	7563	7462		
Form EIA-182																		
Initial	7853	7895	7752	7797	7821	7845	7746	7663	7533	7559	7636	7544	7351	7497	7442	7378		
Revised	7839	7896	7755	7798	7830	7834	7775	7689	7517	7563	7686	7541	7351	7499	7448			
Final[g]	8040	8079	7895	8023	8023	7942												

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[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1988 (annual average of 104 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan, New York, and Ohio are counted as having monthly reported data in 1988 after their annual reports were received. These data were first reported as of 4-14-89. Pennsylvania is counted as having monthly reported data in 1988 after its annual report was received. These data were first reported as of 5-14-89.

[e] Original estimates were made on the first of each month. The original estimate for March 1989 was revised on April 3, 1989, to reflect the Alaskan oil spill.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1988 DOE/EIA 0340(88)/2.

Export Statistics

Census export statistics used in the *Petroleum Supply Monthly* (PSM) reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 10. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) tracks the supply and dispostion of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly surveys and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, summary information on the revision error between preliminary and final data are published in a feature article in the *Petroleum Supply Monthly* (PSM) entitled, "Timeliness and Accuracy of Petroleum Supply Data". Also, a comparison of the data collected on the Monthly Petroleum Supply Reporting System (MPSRS) with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published in the *PSM* feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 11. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement routine frames maintenance activities and provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
  Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B2 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Monthly Petroleum Supply Reporting System (MPSRS) surveys were modified beginning in January 1984. They were:

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Table B4. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	●				
Ethane-Propane Mixtures	●	●			
Propane		●			
Butane-Propane Mixtures		●	●		
Butane			●		
Isobutane				●	
Unfractionated Stream	●	●	●	●	●
Natural Gasoline and Isopentane					●
Plant Condensate					●

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense (PAD) Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *Petroleum Supply Monthly* (PSM) that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below.

- Tables 6 through 10, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products."

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814)	--	--	--	--	100
Plant Condensate (EIA-814)	--	--	--	--	100
Ethane (IM-145)	100	--	--	--	--
Propane (IM-145)	--	100	--	--	--
Butane (IM-145)	--	--	65	35	--
Butane-Propane Mixtures (IM-145)	--	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	--	--	--
Export Product					
Ethane (All PAD Districts)	100	--	--	--	--
Propane (All PAD Districts)	--	100	--	--	--
Butane (All PAD Districts)	--	--	100	--	--
Mixed Streams					
PAD Districts I, IV, V	--	40	60	--	--
PAD District II	30	25	15	15	15
PAD District III	--	80	20	--	--

  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 6 through 10 were reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.

- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."

  - The crude oil line includes movements by pipeline as well as by tanker and barge.

- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."

  - A line was added to report crude oil movements.

- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."

  - The crude oil line includes movements by pipeline as well as by tanker and barge.

Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect. These changes affected the number of operators of petroleum facilities required to complete the monthly surveys in the MPSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSM* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

  - Alaskan crude oil receipts were shown separately.

- Table 14, "Refinery Production of Petroleum Products by PAD District."

Table B6. Impact of New Respondents to December 1985 PSM Data

	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	--	--	2,314	318,695

[a] Stocks as of December 31, 1985.

  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.

- Table 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.

- Tables 18 and 19, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.

- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Monthly Petroleum Supply Reporting System (MPSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

- Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affects *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.

- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

- Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSM* statistics. The principal differences in the *PSM* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989:

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene) were added to Form EIA-810, *Monthly Refinery Report.*

- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*

- Bonded imports of jet fuel and fuel oils and imports of liquefied petroleum gases (LPGs) previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*

- Exports of butane/propane and ethane/propane mixtures are split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.

- The reporting of products other than Natural Gas Liquids by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

- Fractionators were required to report only end-of-month stocks of natural gas liquids on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments are being made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is being made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

Summary Statistics Tables

- "Stock Withdrawal" was renamed "Stock Change" and is a Disposition item rather than a Supply one. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Detailed Table Changes

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year to date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."

- Stocks at natural gas processing plants by Refining Districts were moved from the old Table 24 stock table and included with net production of petroleum products at natural gas plants.

- The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."
  - Net production of olefins (ethylene, propylene, and butylene) was added.
  - Net production of naphthenic and paraffinic lubricants were added.
  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."
  - Stocks at refineries by Refining District were added from the old stock table (Table 24).
  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."
  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemicl feedstock use, lubricants, and asphalt and road oil.
  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination."
  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.
  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

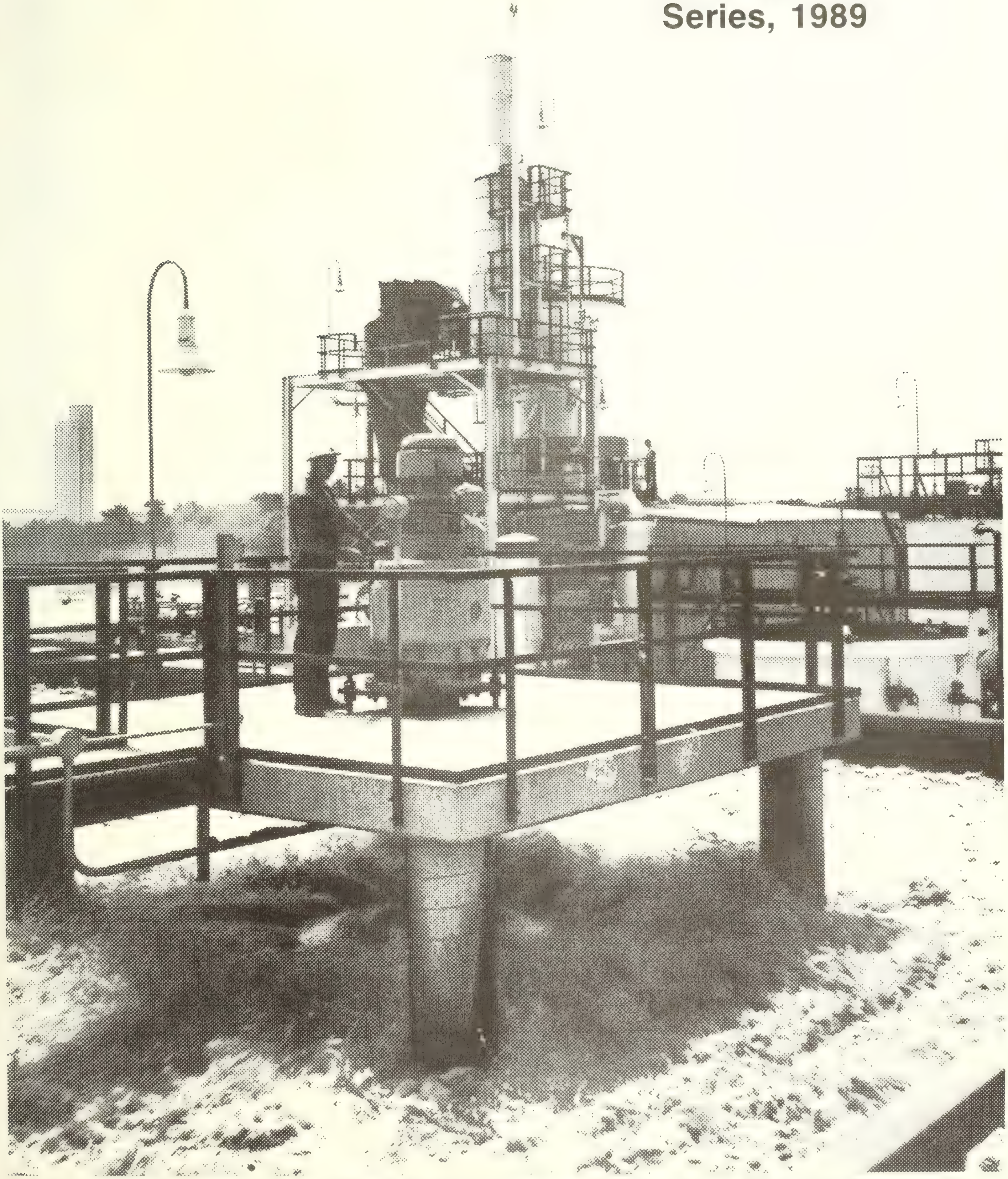
Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

Appendix C

Impact of Resubmissions on Major Series, 1989



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Appendix C

Table C1. Impact of Resubmissions on Major Series, 1989
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs												
Crude Oil	13,330	3	12,774	-6	12,963	(s)	12,953	1	13,395	6	13,896	9
LPGs	421	(s)	331	-2	278	-2	245	-3	226	0	255	0
Production												
LPGs	1,876	8	1,795	3	1,899	11	1,950	(s)	1,945	-2	1,823	1
Finished Motor Gasoline	6,935	2	6,648	2	6,615	0	6,820	-9	6,931	-37	7,289	-13
Naphtha-Type Jet Fuel	191	(s)	190	(s)	209	0	196	0	216	1	211	(s)
Kerosene-Type Jet Fuel	1,312	(s)	1,216	-2	1,188	(s)	1,074	(s)	1,031	0	1,139	(s)
Kerosene	110	(s)	70	(s)	76	0	67	0	46	(s)	70	(s)
Distillate Fuel Oil	2,973	(s)	2,798	-1	2,714	(s)	2,788	(s)	2,748	1	2,808	(s)
Residual Fuel Oil	948	(s)	929	(s)	936	(s)	903	(s)	931	2	951	1
Imports												
Crude Oil	5,521	131	5,263	33	4,993	16	5,745	0	5,665	15	5,915	43
Finished Motor Gasoline	349	3	392	39	381	0	371	-1	356	-1	391	-5
Naphtha-Type Jet Fuel	3	0	2	0	4	0	3	0	10	0	4	0
Kerosene-Type Jet Fuel	82	4	117	0	96	1	125	0	110	0	108	8
Distillate Fuel Oil	331	16	322	1	439	0	299	2	290	0	233	(s)
Residual Fuel Oil	877	32	863	4	703	3	681	0	526	10	515	11
Other Products	647	(s)	683	28	622	21	689	16	630	4	556	33
Stocks (Thousand Barrels)												
Crude Oil	333,291	588	332,698	116	326,315	161	339,413	138	345,263	296	331,054	175
Unfinished Oils	102,390	-153	104,703	-60	108,477	-5	111,663	-130	114,642	236	113,408	272
LPGs	86,958	-31	77,535	60	75,048	-17	83,819	77	97,178	-100	105,160	-16
Total Motor Gasoline	248,549	38	247,097	389	230,000	350	227,492	-207	223,611	-371	216,618	-233
Naphtha-Type Jet Fuel	6,624	2	6,379	2	6,118	0	6,079	0	6,139	37	6,190	4
Kerosene-Type Jet Fuel	37,863	-76	37,368	-451	37,856	-685	38,101	0	39,243	0	38,411	-3
Distillate Fuel Oil	120,290	334	107,549	65	96,625	146	98,378	40	99,296	269	99,419	173
Residual Fuel Oil	46,966	316	45,982	-99	42,400	-398	40,195	12	42,567	82	44,764	-362
Product Supplied												
LPGs	2,051	9	2,038	3	1,813	16	1,506	-1	1,354	3	1,416	-2
Finished Motor Gasoline	6,732	-4	7,095	30	7,421	3	7,150	6	7,416	-35	7,803	-22
Naphtha-Type Jet Fuel	174	0	200	(s)	211	(s)	200	0	224	0	213	1
Kerosene-Type Jet Fuel	1,315	6	1,330	12	1,267	8	1,175	-23	1,103	0	1,273	8
Distillate Fuel Oil	3,296	5	3,411	10	3,429	-3	2,973	6	2,957	-6	2,998	3
Residual Fuel Oil	1,596	22	1,681	19	1,535	12	1,421	-13	1,105	10	1,184	26
Major Products Supplied	15,164	37	15,755	73	15,676	36	14,425	-25	14,159	-28	14,887	15

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

ble C1. Impact of Resubmissions on Major Series, 1989 (Continued)
(Thousand Barrels per Day, Except Where Noted)

	July		August		September		October		November		December		Year to Date
Product	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
uts													
ude Oil	13,843	6	13,858	3	--	--	--	--	--	--	--	--	3
Gs	247	0	245	0	--	--	--	--	--	--	--	--	-1
duction													
Gs	1,858	-8	1,787	(s)	--	--	--	--	--	--	--	--	2
nished Motor Gasoline	7,355	5	7,159	1	--	--	--	--	--	--	--	--	-6
aphtha-Type Jet Fuel	216	0	200	0	--	--	--	--	--	--	--	--	0
erosene-Type Jet Fuel	1,194	0	1,237	0	--	--	--	--	--	--	--	--	0
erosene	55	0	56	0	--	--	--	--	--	--	--	--	0
stillate Fuel Oil	2,846	1	2,905	1	--	--	--	--	--	--	--	--	0
esidual Fuel Oil	860	2	899	3	--	--	--	--	--	--	--	--	1
orts													
rude Oil	6,200	-5	6,521	-1	--	--	--	--	--	--	--	--	29
nished Motor Gasoline	398	-15	358	2	--	--	--	--	--	--	--	--	3
aphtha-Type Jet Fuel	3	0	4	0	--	--	--	--	--	--	--	--	0
erosene-Type Jet Fuel	111	0	81	1	--	--	--	--	--	--	--	--	2
istillate Fuel Oil	335	-1	254	0	--	--	--	--	--	--	--	--	2
esidual Fuel Oil	546	0	478	12	--	--	--	--	--	--	--	--	9
ther Products	544	23	582	(s)	--	--	--	--	--	--	--	--	16
cks (Thousand Barrels)													
rude Oil	332,058	1,346	340,858	385	--	--	--	--	--	--	--	--	401
nfinished Oils	108,945	27	106,172	23	--	--	--	--	--	--	--	--	26
PGs	117,702	93	126,178	65	--	--	--	--	--	--	--	--	16
otal Motor Gasoline	228,853	-48	220,755	12	--	--	--	--	--	--	--	--	-9
aphtha-Type Jet Fuel	6,620	0	6,001	0	--	--	--	--	--	--	--	--	6
erosene-Type Jet Fuel	40,783	-3	42,275	-4	--	--	--	--	--	--	--	--	-153
istillate Fuel Oil	114,974	2	116,057	71	--	--	--	--	--	--	--	--	138
esidual Fuel Oil	42,950	94	44,505	137	--	--	--	--	--	--	--	--	-27
duct Supplied													
PGs	1,348	-12	1,432	1	--	--	--	--	--	--	--	--	2
inished Motor Gasoline	7,316	-12	7,709	5	--	--	--	--	--	--	--	--	-4
aphtha-Type Jet Fuel	203	(s)	224	0	--	--	--	--	--	--	--	--	0
erosene-Type Jet Fuel	1,219	0	1,255	1	--	--	--	--	--	--	--	--	2
istillate Fuel Oil	2,592	6	2,970	-1	--	--	--	--	--	--	--	--	2
esidual Fuel Oil	1,287	-13	1,102	14	--	--	--	--	--	--	--	--	10
ajor Products Supplied	13,965	-31	14,692	20	--	--	--	--	--	--	--	--	12

) = Less than 500 barrels per day.
ote: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

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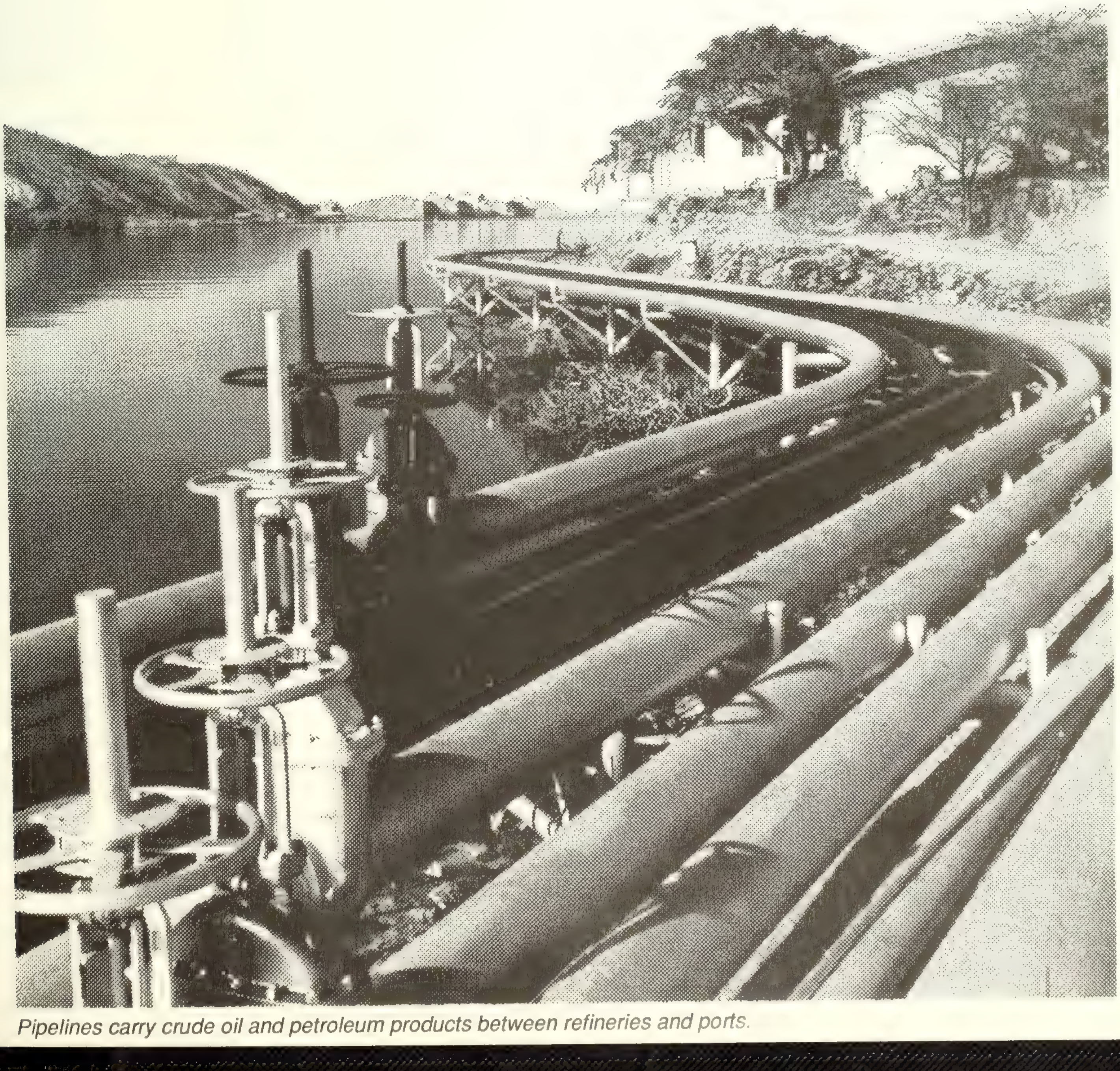
This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr. 60^\circ F / 60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° F to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included,

but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

> ***Domestic.*** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.
>
> ***Foreign.*** Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

> ***No. 1 Fuel Oil .*** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400° F at the 10-percent recovery point and 550° F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.
>
> ***No. 2 Fuel Oil.*** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540° F and 640° F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
>
> ***No. 1 and No. 2 Diesel Fuel Oils.*** Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:
>
>> ***No. 1-D.*** A volatile distillate fuel oil with a maximum distillation temperature of 550° F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.
>>
>> ***No. 2-D.*** A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640°F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.
>
> ***No. 4 Fuel Oil.*** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.

2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit are reprocessed are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° F to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, (C_6H_{14}). It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane, (C4); an alkylation process feedstock, and normal pentane and hexane into isopentane, (C5); and isohexane, (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> ***Paraffinic.*** Includes all grades of bright stock and neutrals with a Viscosity Index >75.
>
> ***Naphthenic.*** Includes all lubricating oil base stocks with a Viscosity Index <75.
>
> ***Note:*** The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> ***Exceptions:*** Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted paraffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and speciality oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

> ***Finished Leaded Gasoline.*** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of

phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 °F.

Naphtha Less Than 401° F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, ($C5H12$), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401° F. *See Petrochemical Feedstocks.*

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401° F" and "Other Oils Equal To or Greater Than 401° F."

> ***Naphtha Less Than 401° F.*** A naphtha with a boiling range of less than 401° F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401° F.*** Oils with a boiling range equal to or greater than 401° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in

ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids; other hydrocarbons and alcohol; and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000° F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone."

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

> ***Microcrystalline Wax.*** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 °F (D1321)-60 maximum. Viscosity at 210° F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.
>
> ***Crystalline-Fully Refined Wax.*** A light-colored paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.
>
> ***Crystalline-Other Wax.*** A paraffin wax having the following characteristics: Viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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B. Paid and/or Requested Circulation 1. Sales through dealers and carriers, street vendors and counter sales	138	166
2. Mail Subscription *(Paid and/or requested)*	479	484
C. Total Paid and/or Requested Circulation *(Sum or 10B1 and 10B2)*	667	650
D. Free Distribution by Mail, Carrier or Other Means Samples, Complimentary, and Other Free Copies	1173	1837
E. Total Distribution *(Sum of C and D)*	1840	1837
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2. Return from News Agents	0	0
G. TOTAL *(Sum of E, F1 and 2—should equal net press run shown in A)*	1840	1837

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Signature and Title of Editor, Publisher, Business Manager, or Owner
Inez E. Allen
Management Analyst

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2. Examine each statement to see that it contains all of the information required by law.

3. Verify that the known office of publication is at address indicated in item 4, page 1 (DMM section 421.3).

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6. The completed form MUST be retained at your office.

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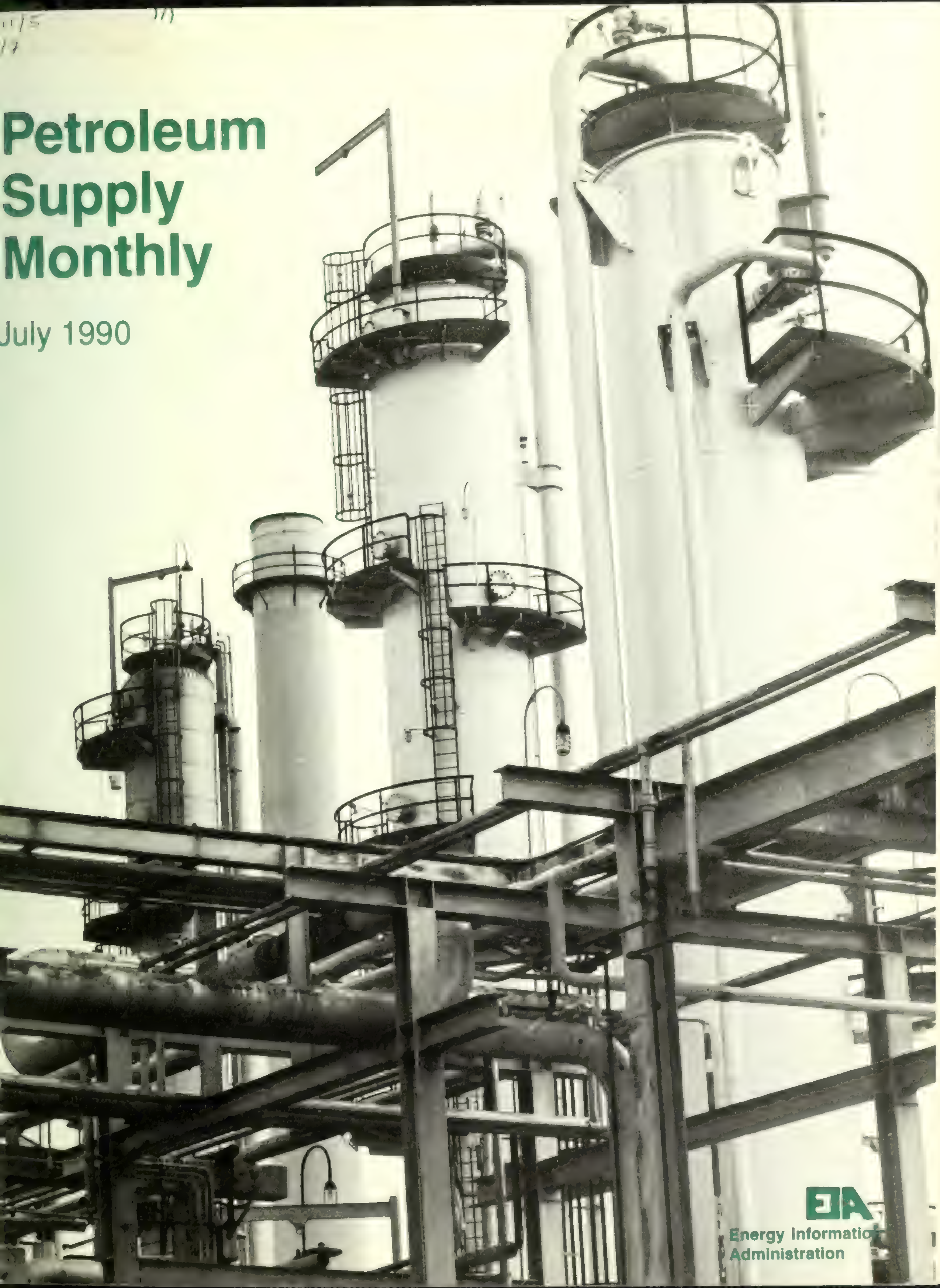

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Further information as to content may be obtained from the National Energy Information Center (NEIC), telephone (202) 586-8800. The current tapes are also available on a subscription basis. All files available on magnetic tape can be converted into diskette files. (Please contact NTIS for current prices.) Ordering information may be obtained by calling (703) 487-4807.

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Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in Primary Supply. Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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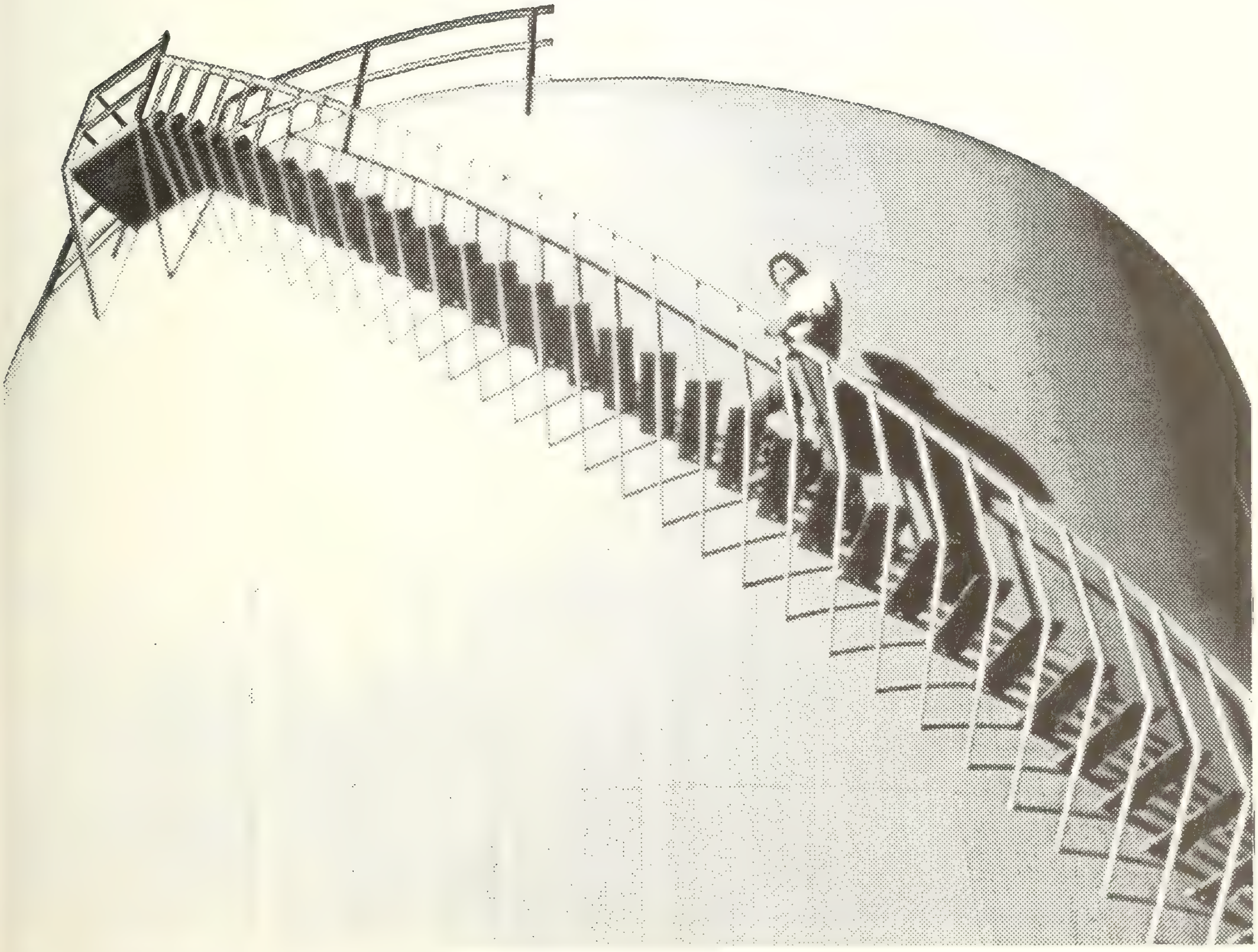
Motor Gasoline Outlook: 1990	February 1990
Timeliness and Accuracy of Petroleum Supply Data	April 1990

Feature Article



A refinery worker makes his way around a towering storage tank to check the tank level.

Heating Fuel Outlook: Winter 1990-91

by James M. Kendell

Because of the current uncertainty about energy markets over the next several months, the Energy Information Administration has examined three supply and demand scenarios reflecting alternative estimates of world oil market conditions. These scenarios each include the assumption of constant nominal crude oil prices beginning in September 1990, with values of $20, $25, and $30 per barrel. The results of the $30 case are presented in this article.

Iraq's invasion of Kuwait assured that distillate fuel oil and propane consumers would pay higher prices this winter than last winter. Unless the weather is significantly colder than normal or an unusual number of refinery breakdowns occur, the biggest problem distillate fuel oil consumers face is the possibility of tight crude oil supplies beginning toward the end of the year. Propane consumers, on the other hand, already face lower primary stocks this year than last year.

After reviewing events in the distillate and propane markets during the winter of 1989-90, this article presents current conditions in the distillate and propane markets and the *Short-Term Energy Outlook* estimates of distillate consumption, supply, and prices, assuming a $30 world oil price. The fourth section discusses some of the factors not considered by the short-term forecasting model. The final section shows where to find further official information.

Distillate Fuel Oil

During the winter of 1989-90, the Nation witnessed an extraordinary increase—and almost as extraordinary a decrease—in the prices of home heating and diesel fuel oils. December's cold weather drove consumption and prices to unexpectedly high levels, and pulled end-of-December inventories to unusually low levels. However, significant increases in domestic production and imports, combined with warm January and February temperatures, alleviated any threats of shortages and reduced prices to pre-season levels.

Consumption

Despite very cold December temperatures, U.S. distillate fuel oil consumption from October 1989 to March 1990 was slightly less than the preceding winter[1] (Table 1). Warm January and February temperatures prevented a disastrous winter for home heating oil users.

In the United States, distillate fuel oil is used primarily in the form of diesel fuel oil for transportation (Table 2). In calendar year 1988, 55 percent was consumed as transportation fuel, 18 percent in industrial facilities, 16 percent in homes, 9 percent in commercial buildings, and 2 percent in electric generating plants. Distillate fuel oil was the main heating fuel in 10.9 million or 12 percent of the Nation's households in 1987.[2]

U.S. consumption of distillate fuel oil in 1989-90 was lower than the previous winter in October, January, February, and March and higher than the previous winter in November and December (Table 3). These differences reflect colder November and December 1989 weather than in 1988, and warmer weather than the previous year in the other months. Normally, January is the coldest month of the winter, but this past heating season December was the coldest month. For the entire winter, 1989-90 heating degree days were 4.1 percent less than 1988-89. Temperatures in the winter of 1988-89 were closer to the weather pattern prevailing from 1951-80, than the winter of 1989-90.[3]

Nationally, cold weather pushed distillate fuel oil consumption 4 percent above November 1988 and 10 percent above December 1988 (Table 3). To the surprise of nearly everyone, December 1989 consumption was 354,000 barrels per day above December 1988 and the highest of any month since January 1981. Nationally, heating degree days were 8 percent above November in 1988, and 30 percent above the December 1988. December 1989 temperatures were the coldest since 1983. Some 46 cities reported their lowest December temperatures ever.[4]

Note: Unless otherwise cited, data in this article are from the following Energy Information Administration publications: *Petroleum Supply Annual 1989, Volume 1* or *Volume 2*, DOE/EIA-340(89)/1 (May 1990) or /2 (June 1990) and predecessor publications; *Petroleum Supply Monthly*, DOE/EIA-0109(90/04) (June 1990) and predecessor publications; *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (June 1990); and *Short-Term Energy Outlook*, DOE/EIA-0202(90/3Q) (September 1990).

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[1] In this article, "winter" refers to the winter heating season from October 1 through March 31 and "consumption" refers to product supplied. Tables and graphs for this article were prepared with the assistance of Doris M. Ferguson.

[2] Energy Information Administration, *State Energy Data Report*, DOE/EIA-0214(88)(Washington, DC, April 1990); *Housing Characteristics 1987*, DOE/EIA-0314(87)(Washington, DC, May 1989), pp. 45, 48.

[3] National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating/Cooling Degree Days Weighted by Population*, (Washington, DC).

[4] National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating/Cooling Degree Days Weighted by Population*, (Washington, DC); telephone discussions with representatives of National Oceanic and Atmospheric Administration, June 28, and August 13, 1990.

Table 1. U.S. Consumption, Supply, and Price of Distillate Fuel Oil, Winter 1988-90
(Thousand Barrels per Day)

	1988-89	1989-90	Percent Change
Consumption (Thousand Bbl/Day)	3352.9	3342.3	-0.3
Supply (Thousand Bbl/Day)			
Production	2882.6	2966.1	2.9
Net Imports	279.9	247.1	-11.7
Stock Changes	190.6	129.0	-32.3
Total	3352.9	3342.3	-0.3
Price (Dollars/Bbl)			
Wholesale	$20.97	$27.10	29.2
Residential	$34.41	$41.09	19.4

Note: "Winter" is the winter heating season from October 1 through March 31. Data are time-weighted averages of monthly data. "Product supplied" data are used to represent consumption. Supply components do not equal total supply because of independent rounding.

Sources: Calculated from Energy Information Administration, *Petroleum Supply Monthly* (June 1990); *Petroleum Marketing Monthly* (February 1989 through April 1990); *Petroleum Marketing Annual 1988* (October 1989).

The difference in heating degree days in January and February 1990 from the previous year nearly mirrored the differences in November and December from the previous years. Nationally, it was 8 percent warmer than 1989 in January, 22 percent warmer than 1989 in February, and 12 percent warmer than 1989 in March. January was the warmest since at least 1895.[5] However, warmer weather translated into only a 5-percent drop in consumption for January through March (Table 3), because less than half of distillate consumption is devoted to space heating (Table 2).

Table 2. U.S. Distillate Consumption by Sector and Region, 1988
(Thousand Barrels per Day)

	Petroleum Administration for Defense District					
Sector	I	II	III	IV	V	U.S.
Residential	392	85	0	3	18	499
Commercial	154	47	26	7	35	269
Industrial	114	179	164	33	82	573
Transportation	521	539	323	68	279	1730
Electric	31	10	3	1	6	51
Total	1212	861	517	111	420	3122

Source: Calculated from Energy Information Administration, *State Energy Data Report* (May 1990).

Table 3. U.S. Distillate Consumption and Production, 1988-90
(Thousand Barrels per Day)

	1988-89	1989-90	Percent Change
Consumption			
October	3218	3127	-2.83
November	3183	3311	4.02
December	3560	3914	9.94
January	3303	3177	-3.81
February	3427	3250	-5.16
March	3428	3265	-4.75
Production			
October	2827	2906	2.79
November	2909	3063	5.29
December	3068	3266	6.45
January	2974	3136	5.45
February	2797	2753	-1.57
March	2713	2655	-2.14

Note: "Product supplied" data is used to represent consumption.

Source: Energy Information Administration, *Petroleum Supply Monthly* (June 1990).

Distillate fuel oil consumption in 1989-90 was not only slightly less than 1988-89, it was also 2 percent less than expected under weather-adjusted consumption[6] (Figure 1). In November 1989, consumption was 2 percent more than the weather-adjusted estimate and in December it was 11 percent more than the weather-adjusted estimate. In the other 4 months consumption ranged from 1 percent less than the weather-adjusted estimate in October to 10 percent less than the weather-adjusted estimate in January.

Regional

Forty-three percent of the distillate fuel oil used during the 1989-90 heating season was consumed on the East Coast (Petroleum Administration for Defense District (PADD) I), more than in any other region of the country. The Midwest (PADD II) was next, at 26 percent, followed by the Gulf Coast (PADD III), the West Coast (PADD V), and the Rocky Mountain region (PADD IV).[7]

As the Nation's largest consumer of distillate fuel oil, the East Coast has a disproportionate effect on total consumption. During the month of December, East Coast consumption was up 17 percent from 1988, while West Coast and Rocky Mountain consumption were actually down from the previous year. In the West, warmer December 1989 weather than 1988 and in the East, 34 percent colder weather than 1988 accounted for

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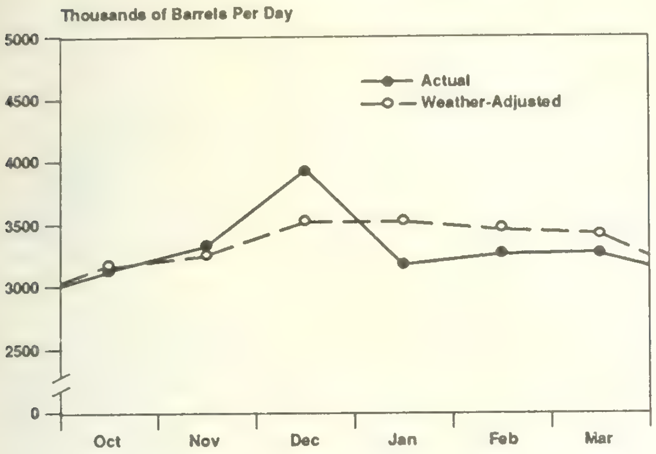
[5] National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating/Cooling Degree Days Weighted by Population*, (Washington, DC); telephone discussion with representative of National Oceanic and Atmospheric Administration, June 28, 1990.

[6] "Weather-adjusted" distillate consumption is an estimate of fuel oil consumption in the winter of 1989-90, assuming weather follows historically normal patterns. The estimate was made by the Energy Analysis and Forecasting Division with the Short-Term Integrated Forecasting System using 1951-1980 weather data from the National Oceanic and Atmospheric Administration.

[7] Consumption data in this paragraph and the next paragraph: Energy Information Administration, *Petroleum Supply Annual 1989,Volume 1*, DOE/EIA-0340/1 (Washington, DC, May 1990); *Petroleum Supply Monthly*, DOE/EIA-0109 (90/06).

Figure 1. U.S. Distillate Consumption, Actual and Weather-Adjusted, 1988-90



Note: "Weather-adjusted" distillate consumption is an estimate of fuel oil consumption, if weather had followed historically normal patterns. The estimate was made with the Short-Term Integrated Forecasting System using 1951-80 weather data from the National Oceanic and Atmospheric Administration.

Sources: Energy Information Administration, **Actual**: *Petroleum Supply Monthly* (June 1990); **Weather Adjusted**: Office of Energy Markets and End Use.

these consumption patterns. By February 1990, all regions of the country were warmer than in February 1989. The East Coast was 19 percent warmer and the Gulf Coast was 38 percent warmer.[8]

Weather has a significant impact on East Coast distillate fuel oil consumption, because residential consumption is the second largest end use on the East Coast, after transportation. In the New England and Mid-Atlantic subregions, residential consumers are the largest users of distillate fuel oil. According to the latest available data, 43 percent of East Coast consumption was devoted to transportation and 32 percent to residential uses in calendar year 1988 (Table 2). East Coast residential consumption was 79 percent of total U.S. residential distillate fuel oil consumption in calendar year 1988. Eight of the top 10 States in residential consumption were on the East Coast. Only 30 percent of diesel fuel consumed in the United States is consumed on the East Coast.[9]

The West Coast showed the largest variation in year-to-year consumption changes from last winter to the previous winter. January 1990 consumption was 5 percent less than 1989, while March 1990 consumption was 22 percent more than 1989. However, because the West Coast was the next to the smallest of five PADD regions, these variations had little effect on overall consumption.[10]

Supply

Although overall consumption of distillate fuel oil was slightly less last winter than the winter before, domestic production increased, while net imports and supplies taken from inventory decreased (Table 1). By the end of December, cold weather sent inventories plunging to their lowest year-end level in nearly 40 years. To rebuild inventories, December production and January gross imports were the highest of any month in more than 10 years.

Domestic production is the largest source of distillate fuel oil; it made up 89 percent of consumption during the winter of 1989-90. But with refineries operating very close to their maximum capacity, supplies from imports and inventories were just as important. Net imports and inventories supplied 7 and 4 percent, respectively, of the Nation's needs.

Domestic Production

Distillate fuel oil production was up about 3 percent in the United States last winter, compared to the winter of 1988-89. Monthly rates of change ranged from an increase of over 6 percent to a decrease of 2 percent (Table 3). During each month last winter—except the crucial month of December—the rate of change in production grew faster or declined more slowly than consumption, when compared to the previous year.

During the last 2 weeks of December, at least 17 major refineries reduced distillate fuel oil production, because of fires or freezing weather.[11] These 17 represented more than one-quarter of U.S. refining capacity. Many of the affected refineries were on the Gulf Coast, the Nation's major oil-refining area, where heating degree days for December were 57 percent above 1988. Temperatures in Houston, Texas, reached a record low of 7 degrees above zero. Refineries along the Gulf Coast—designed to operate in a warm climate—reported frozen pipes, pumps, gauges, and valves.[12] The second largest U.S. refinery, the Exxon Baton Rouge plant, suffered a fire on Christmas Eve, which killed two workers and completely shut down operations for a week.[13] Gulf Coast refiners reported that production slipped 27 percent for the week ending December 29, 1989, compared to the previous week.[14]

Even though distillate fuel oil production failed to keep up with consumption in December, refiners—motivated by rapidly rising prices—made a concerted effort to do so. Domestic production for December reached 3.3 million barrels per day (Table 3), the highest since September 1979. During the week ending December 22, production rose to 3.5 million barrels per day, the highest 1-week level in more than 10 years.[15] Distillate fuel oil yields were 23.8 percent in December, the highest since December 1985, because refiners produced distillate fuel oil instead of lighter products. For the entire winter, distillate fuel oil yields averaged 21.5 percent, compared to 21.1 percent during the winter of 1988-89.[16]

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[8] National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating/Cooling Degree Days Weighted by Population*, (Washington, DC).

[9] Energy Information Administration, *State Energy Data Report*, DOE/EIA-0214(88)(Washington, DC, April 1990).

[10] Energy Information Administration, *Petroleum Supply Annual 1989, Volume 1*, DOE/EIA-0340(89)/1 (Washington, DC, May 1990); *Petroleum Supply Monthly*, DOE/EIA-0190(90/03) (Washington, DC, May 1990).

[11] Telephone discussions with respondents to Form EIA-800, "Weekly Refinery Report."

[12] National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating/Cooling Degree Days Weighted by Population*, (Washington, DC); telephone discussion with representative of National Weather Service, August 13, 1990.

[13] "Baton Rouge Refinery In Operation, Exxon Says," *Oil Daily* (Washington, DC, January 3, 1990), p. 1.

[14] Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208(90-02)(Washington, DC, December 29, 1989), p. 22.

As with distillate fuel oil production, refinery utilization of operating capacity in 1989-90 exceeded that in 1988-89 in each month except December. Utilization of operating capacity was 87.6 percent in December 1989, but 91 percent in December 1988, reflecting the refinery problems on the Gulf Coast. Overall utilization of operating capacity was 89.7 percent last winter, compared to 88.7 percent the previous winter.[17]

Transportation problems also limited the ability of refiners to get their product to market in December. The Jones Act, which prohibits foreign ships from delivering cargoes from one U.S. port to another, prevented at least two ships from delivering oil to the East Coast during late December and early January. On the Mississippi River, low water and ice jams between mouth of the Missouri River and St. Louis, Missouri, caused suspension of navigation during the last half of December. (Ice jams normally close the mid-Mississippi in late January, but warm weather prevented formation of any jams during January 1990.) On the East Coast, icy conditions during December sometimes made it difficult to unload barges and to deliver fuel oil by truck.[18]

While no terminals or pipelines were consistently out of distillate fuel oil for days at a time, a few terminals in the Northeast ran out for a day or two. Some dealers reported waits of 3 to 4 hours to pick up distillate fuel oil. Exxon, Mobil, and Texaco reported temporary depletions at some of their terminals late in December. Mobil rationed heating oil to its dealers in 11 Northeastern States from December 20 through 31 and Colonial Pipeline pro-rated space for distillate fuel oil shipments late in December.[19]

Although each month's production exceeded the previous year's during the first 4 months of the winter of 1989-90, February and March 1990 production were lower than in 1989 (Table 3). High production in December and January and high imports in January and February, as well as warm weather, filled inventories to seasonal levels, brought down prices, and reduced production.

Foreign Trade

Net imports of distillate fuel oil during the winter of 1989-90 were down 12 percent compared to the previous winter (Table 1). Ties between the European and U.S. East Coast fuel oil markets were evident in this decline. High European prices drew supplies of distillate fuel oil to Europe that normally would have been sent to the United States. Some U.S. distillate fuel oil even went to Europe.

Gross distillate fuel oil imports for the 1989-90 heating season were lower than the previous heating season in each month, except January and February (Table 4). Month-to-month differences in imports from the previous year ranged from a gain of 45 percent to a loss of 36 percent. Exports were up for the first 3 months of the heating season and down for the last 3 months, compared to the previous year. Because exports are much smaller than imports, percentage differences in exports fluctuated even more wildly, from an increase of 262 percent (89,000 barrels per day) to a decrease of 60 percent (99,000 barrels per day).

A short-lived October cold spell in Northern Europe combined with several other factors[20] to increase European consumption of distillate fuel oil. October 1989 European consumption was 8 percent greater than October 1988, while November and December 1989 consumption were lower than November and December 1988.[21]

Higher European consumption raised relative European/U.S. prices, compared to 1988. The relatively high prices of European distillate fuel oil tended to reduce European exports to the United States and to draw other foreign supplies toward Europe instead of to the United States.[22] Although the United States received distillate fuel oil imports from four European nations and Saudi Arabia in November 1989, in December 1989 all U.S. distillate fuel oil imports came from the Western Hemisphere.[23]

Meanwhile, U.S. exports of distillate fuel oil to several European and Asian nations increased sharply in November and December. For example, Japan, Netherlands, Singapore, Italy, and even Venezuela[24] received significantly increased

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[15] Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208(90-02)(Washington, DC, December 29, 1989), p. 22.

[16] Energy Information Administration, *Petroleum Supply Annual 1989, Volume 1*, DOE/EIA-0340(89)/1 (Washington, DC, May 1990); *Petroleum Supply Monthly*, DOE/EIA-0190(90/03)(Washington, DC, May 1990).

[17] Energy Information Administration, *Petroleum Supply Monthly*, EIA/DOE-0109, (Washington, DC, December 1989 and March 1990), Table H2.

[18] Telephone conversation, representative of U.S. Army Corps of Engineers, St. Louis, July 30, 1990; American Petroleum Institute, *Response 438* (December 27, 1989).

[19] Minutes from Government/Industry Meeting on Severe Weather Conditions at U.S. Department of Energy, December 23, 1989; Todd Smith, "Cold snap drains heating oil supply," *Washington Times* (Washington, DC, December 25, 1989), p. B5; T.C. DeLoach, Mobil Oil Corporation, to Robert Abrams, New York Attorney General, letter (January 17, 1990); David L. Langley, "Heating Fuel Price Increases," hearing before Robert Abrams and other New York officials, January 23, 1990.

[20] Low water on the Rhine River, coal strikes in the U.S.S.R., and European delays in filling heating oil tanks. "Cold Snap Warms Refiners' Hearts in Europe and US," *Petroleum Intelligence Weekly* (New York, NY, December 18, 1989), p. 3.

[21] International Energy Agency, *Monthly Oil and Gas Statistics* (Paris, France).

[22] Energy Information Administration, *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (Washington, DC, June 1990), p. 39-40.

[23] These data and data in the following three paragraphs are from: Energy Information Administration, *Petroleum Supply Annual 1989, Volume 1* (DOE/EIA-0340(89)/1 (Washington, DC, May 1990); *Volume 2* (DOE/EIA-0340(89)/2 (Washington, DC, June 1990); *Petroleum Supply Monthly*, DOE/EIA-0109(90/03) (Washington, DC, May 1990).

[24] Venezuela is the largest foreign supplier of distillate fuel oil to the United States.

Table 4. **U.S. Distillate Foreign Trade, 1988-90**
(Thousand Barrels per Day)

	Imports			Exports			Net Imports		
	1988-89	1989-90	Percent Change	1988-89	1989-90	Percent Change	1988-89	1989-90	Percent Change
October	336	261	-22.3	48	90	87.5	288	171	-40.6
November	327	307	-6.1	34	123	261.8	293	184	-37.2
December	409	324	-20.8	87	130	49.4	322	194	-39.8
January	346	501	44.8	110	62	-43.6	236	439	86.0
February	331	357	7.9	164	65	-60.4	167	292	74.9
March	439	280	-36.2	76	75	-1.3	363	205	-43.5

Source: Energy Information Administration, *Petroleum Supply Monthly* (June 1990).

quantities in November and December 1989, compared to 1988. With the early cold spell in Europe, Europeans and others were willing to pay higher prices than American buyers, thus drawing distillate fuel oil exports away from the United States.

As the December cold spell in the United States lengthened, prices soared and drew more imports toward the United States. Although December distillate fuel oil imports were 6 percent above the November 1989 level, the sharp December increases in imports of the past 2 years never materialized (Table 4). Gross imports were the equivalent of 8 percent of product supplied in December 1989, compared to 11 percent during the previous two Decembers.

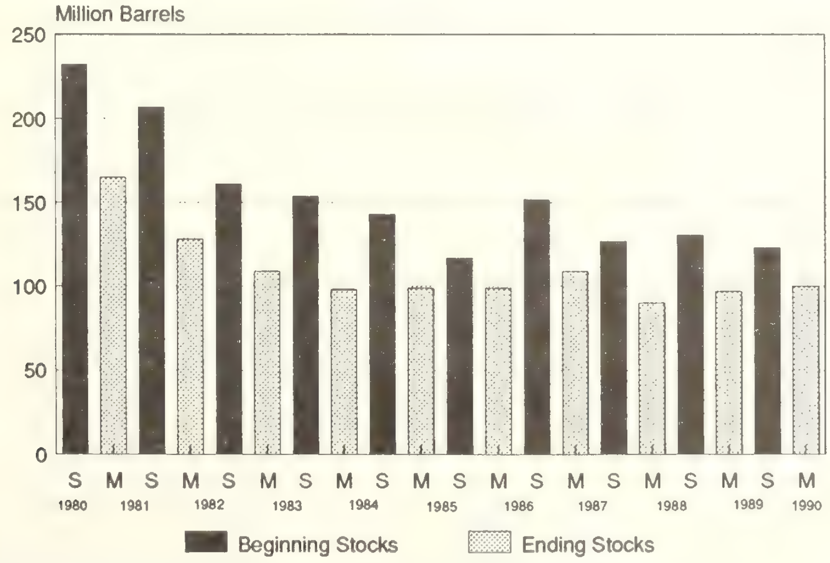
Transportation lags and storms in the Atlantic Ocean delayed a surge in imports until after the cold spell had almost ended. Gross distillate fuel oil imports averaged more than half a million barrels per day in January, more than any month since March 1977. Although the United States received imports from only 4 countries in December 1989, imports came from 14 nations in January 1990. Most of the incremental supplies came from Eastern Hemisphere countries, such as the U.S.S.R, Algeria, and West Germany.[25]

Net imports in January and February 1990 were higher than the same months in 1989, but by March 1990 imports had once again fallen below March 1989 (Table 4). Lower consumption in the first 3 months of 1990 than 1989, combined with ample inventories resulting from high January and February domestic production, made significant March imports unnecessary.

Inventories

Even though inventories of distillate fuel oil began the heating season at their lowest level in 4 years, significant domestic production and warm weather brought end-of-season stocks to their highest level in 3 years (Figure 2). Partly because distillate fuel oil stocks were lower during the 1989-90 heat-

Figure 2. **U.S. Distillate Fuel Oil Stocks, Heating Season 1980-1990**



Note: Beginning Stocks are as of September 30 (S); Ending Stocks are as of March 31 (M).
Source: Energy Information Administration, *Petroleum Supply Monthly*, (June 1990); *Petroleum Supply Annual 1989*, (May 1989) and predecessor publications.

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[25] Energy Information Administration, *Petroleum Supply Annual 1989, Volume 1*, DOE/EIA-0340(89)/1 (Washington, DC, May 1990); *Petroleum Supply Monthly*, DOE/EIA-0190(90/03) (Washington, DC, May 1990).

ing season than the year before, absolute withdrawals from stocks were about one-third less last winter than the previous winter (Table 1).

During the winter of 1989-90, distillate fuel oil stocks were below the previous winter's level for the first 4 months of the season, but above the previous year's level at the end of February and March (Table 5). Stocks began the heating season at low levels, because of strong consumption of diesel fuel in the spring and summer, and increased summer exports of distillate fuel oil. Tight international supplies had raised prices in the summer, not only luring exports from the United States, but also reducing incentives to store distillate fuel oil for the winter.

In order to meet December's increased demand, stocks were drawn down to 106 million barrels (Table 5), the lowest year-end level since 1952. Distillate fuel oil stocks do not normally fall this low until February or March. The 14-million-barrel November-to-December 1989 withdrawal was the largest in

Table 5. U.S. Distillate Fuel Oil Stocks, 1988-1991
(Million Barrels)

	UNITED STATES					EAST COAST (PADD I)				
	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b
June	110	100	109	-9	9	37	36	40	-3	11
July	120	115	126	-4	10	45	45	52	0	16
August	126	116	130	-8	12	52	48	56	-8	17
September	131	123	--	-6	--	57	50	--	-12	--
October	128	122	--	-5	--	57	52	--	-9	--
November	129	120	--	-7	--	55	50	--	-9	--
December	124	106	--	-15	--	49	35	--	-29	--
January	121	118	--	-2	--	47	44	--	-6	--
February	108	112	--	4	--	37	39	--	5	--
March	97	100	--	3	--	33	31	--	-6	--
April	99	99	--	0	--	33	30	--	-9	--
May	100	103	--	3	--	33	34	--	3	--

	MIDWEST (PADD II)					GULF COAST (PADD III)				
	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b
June	30	27	30	-10	11	27	24	25	-11	4
July	31	29	32	-6	10	29	28	28	-3	0
August	31	29	32	-6	10	28	26	29	-7	12
September	30	31	--	3	--	29	29	--	0	--
October	29	29	--	0	--	29	28	--	-3	--
November	29	29	--	0	--	30	27	--	-10	--
December	31	31	--	0	--	28	25	--	-11	--
January	33	33	--	0	--	28	26	--	-7	--
February	31	33	--	6	--	26	25	--	-4	--
March	27	30	--	11	--	23	24	--	4	--
April	27	29	--	7	--	24	25	--	4	--
May	27	30	--	11	--	25	24	--	-4	--

Note: August 1990 data are preliminary.
Sources: Energy Information Administration, *Petroleum Supply Monthly*, (June 1990); *Petroleum Supply Annual 1989, Volume 2*, (June 1990) and predecessor publications; *Weekly Petroleum Status Report*, (September 7, 1990).

almost 2 years and represented a 12-percent drop in stocks. East Coast (PADD I) inventories declined 29 percent from November to December 1989, while Gulf Coast (PADD III) inventories fell 7 percent. In January, however, aided by warm weather, U.S. stocks increased by 12 million barrels, the fastest rise since August 1986.

Throughout the 1980's, high carrying costs and volatile prices have contributed to the gradual decline of beginning-of-season distillate fuel oil inventories. This past winter, in addition to the higher than normal pre-season demands, exports, and prices already mentioned, forecasts of warmer-than-normal weather and memories of costly high stock levels in the winter of 1988-89 also contributed to low beginning stocks.

Refiners, pipelines, and large terminal operators have little incentive to accumulate large inventories, unless they have good prospects of recovering their costs to store distillate fuel oil. In addition to the cost of investing capital in inventories for several months during a time of high interest rates, inventory holders must pay the cost of purchasing and maintaining tanks. During the 1980's, the prime interest rate averaged 11.8 percent, compared to 8.1 percent in the 1970's and just 5.3 percent in the 1960's.[26] These rising costs give inventory holders an incentive to take advantage of the computerized measuring, monitoring, and distribution methods that make it possible to control inventory—and costs—more carefully.

In the summer of 1989, strong diesel demand and strong international demand pulled prices upward. As a result, the spread between spot and futures market prices was rarely as high as 2 cents per gallon, averaging about 1.5 cents in August and less in September. This spread was probably insufficient to cover carrying costs. Meanwhile, the prime interest rate averaged 10.9 percent.[27]

Price volatility makes it risky to hold stocks inventories of distillate fuel oil. If retail prices rise, holders of inventory will benefit, but if prices fall, they will be forced to sell their product at a loss. During the 1980's wholesale prices were more volatile than during the 1970's.[28] Price volatility has increasingly forced the industry to hedge its purchases and sales on the commodity markets. A hedge may deprive a firm of profits from a price increase, but can insure a firm against losses in the event of a price decrease. Hedging itself has further reduced incentives to hold stocks, because it takes over much of the speculative function sometimes formerly performed by holding stocks.

Forecasts of warmer-than-normal weather complicated the inventory picture in 1989. At the end of October, the National Weather Service predicted a 60-percent chance of warmer-than-normal weather in much of New England and the Mid-Atlantic for November through January. As late as the end of November, the 90-day forecast showed a 60-percent probability for warmer-than-normal weather in lower New England and the Mid-Atlantic, and a 70-percent probability of warmer-than normal weather in Delaware, southern New Jersey, eastern Maryland, eastern Virginia, and eastern North Carolina.[29] On top of these forecasts, some dealers remembered that they had stocked up in 1988, only to end up selling at a loss or at a smaller profit than usual. Some consumers also remembered the warm weather and failed to stock up before the onset of winter.[30]

Even though end-of-December inventories dipped to historically low levels, stocks at the end of March were close to 100 million barrels (Figure 2). During the last 7 years, end-of-March stocks have only exceeded this level once.

Price

Distillate fuel oil prices responded to the winter heating season's unusual demand and supply conditions by increasing very rapidly and unexpectedly in late December and declining almost as rapidly in January. This rapid increase in prices gave inflation a temporary boost and resulted in increased low-income heating assistance, but did not significantly improve oil company profits during the heating season.

During the entire winter of 1989-90, both wholesale and retail distillate fuel oil prices were more than $6 per barrel higher than the previous winter (Table 1). Much of the year-to-year increase is attributable to increased refiner acquisition costs for crude oil, but part of it is attributable to declining stock levels at a time when high refinery utilization rates made it impossible to increase domestic production.

Changes in both supply and demand played a role in the rapid December escalation of prices. Distillate fuel oil supplies were restricted by cold weather on the Gulf Coast and by declining imports. This forced inventories to serve as the marginal source of supply—a role usually taken by imports. Demand increased sharply because of the cold, as well. A significant share of the weather-induced jump in consumption came from consumers of distillate fuel oil like utilities, hospitals, and schools, that normally rely on other fuels.

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[26] Calculated from *Economic Report of the President* (Washington, DC, February 1990), p. 376.

[27] Energy Information Administration, *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (Washington, DC, June 1990), p. 37; calculated from *Economic Report of the President* (Washington, DC, February 1990), p 376.

[28] The standard deviation of monthly wholesale prices was never below 2 cents per gallon in any year of the 1980's, and was more than 10 cents per gallon in 1986, while the standard deviation occasionally slipped below 1 cent per gallon during the 1970's. With the significant runup in prices at the end of the year, 1989's standard deviation was 5.8 cents per gallon. Calculated from Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487(88) (Washington, DC, October 1989); *Petroleum Marketing Monthly*, DOE/EIA-0380(90/03) (Washington, DC, June 1990).

[29] National Oceanic and Atmospheric Administration, *Monthly & Seasonal Weather Outlook* (Washington, DC, October 31 and November 29, 1989).

[30] John M. Berry, "Heating Oil Prices Surge In Northeastern States," *Washington Post* (Washington, DC, December 22, 1989), p. A9; Minutes from Government/Industry Meeting on Severe Weather Conditions at U.S. Department of Energy, December 23, 1989.

Supply and demand played an equally important role in the rapid fall in prices during January. High domestic production in December and January and high imports during January and February restored inventories to seasonal levels and eased fears of shortages. In early January the cold wave broke and soon gave way to balmy February temperatures, reducing demand for distillate fuel oil.

As a result of this rapid rise and fall in prices, both wholesale and retail monthly average prices were more volatile in 1989-90 than the previous winter. Monthly retail prices varied less than 12 cents per gallon in 1988-89, but more than 28 cents per gallon in 1989-90. From November to December 1989, average retail prices increased 19.3 cents per gallon to $1.08 cents per gallon. This 22-percent increase was the largest 1-month increase recorded since the Department of Energy began retail price data collection in 1982. Prices peaked in January at $1.14 per gallon. Then, from January to February 1990, retail prices dropped 17.8 cents per gallon. This 16-percent drop was the largest 1-month decrease since data collection began.[31]

Average monthly wholesale prices did not move as rapidly as average monthly retail prices, but wholesale spot prices moved even more rapidly (Figure 3). From their November 15 low of $23.85 per barrel, prices more than doubled to $48.39 at their December 27 peak. By February 9, however, wholesale spot prices were back down to $23.14 per barrel. Wholesale prices went so high that during December and January the average monthly wholesale price of distillate fuel oil exceeded the wholesale price of finished gasoline for the first time in 4 years.[32]

The East Coast, the area of the country consuming the largest amount of distillate fuel oil, experienced the highest retail prices during the winter of 1989-90. Within this area, New England and the Mid-Atlantic States experienced average prices of more than $1.18 cents per gallon in January. Retail prices as high as $1.50 per gallon were reported in New Hampshire.[33] Unlike most parts of the country, high natural gas transportation costs make home heating oil generally cheaper than natural gas in New England. During December and January, however, natural gas was less expensive than heating oil.[34] Prices in the Nation's second largest consuming area, the Midwest, increased 16 percent from November to December; West Coast prices were minimally affected.[35]

The December rise in distillate fuel oil prices had a significant, though temporary, effect on consumer prices. Consumer prices rose 0.4 percent in December; only a small part of the increase was caused by heating fuel price increases. However, consumer prices rose 1.1 percent in January 1990, the largest

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[31] Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487(88) (Washington, DC, October 1989); *Petroleum Marketing Monthly*, DOE/EIA-0380(90/03) (Washington, DC, June 1990). The Bureau of Labor Statistics reported a 25 percent increase in residential fuel oil prices from December 1989 to January 1990, the biggest monthly increase since it began collecting data in 1956.

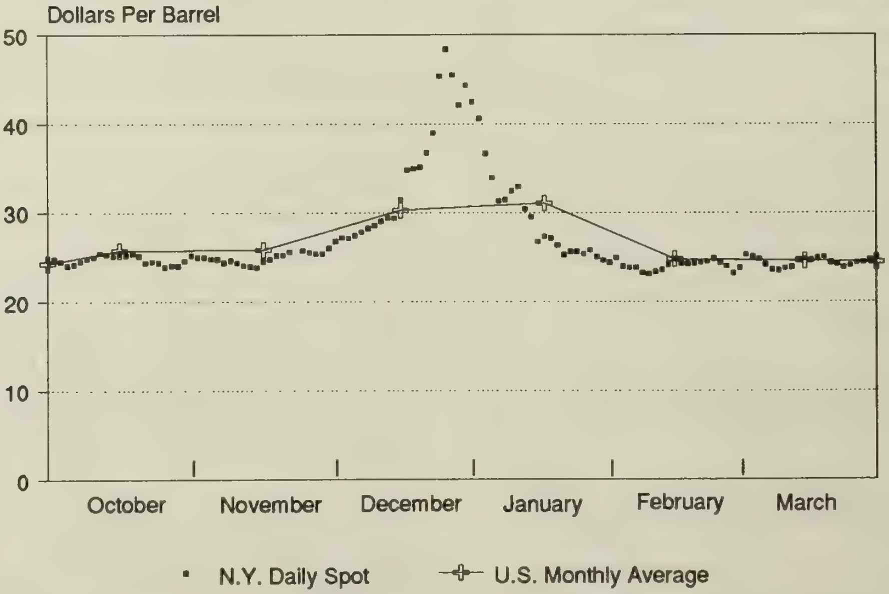
[32] Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487(88) (Washington, DC, October 1989); *Petroleum Marketing Monthly*, DOE/EIA-0380(90/03) (Washington, DC, June 1990).

[33] Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487(88) (Washington, DC, October 1989); *Petroleum Marketing Monthly*, DOE/EIA-0380(90/03) (Washington, DC, June 1990); State of New Hampshire, *Energy Supply Crisis Review Board Report* (Concord, NH, February 14, 1990), p. 11.

[34] Calculated from Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(90-03) (Washington, DC, June 1990), pp. 99, 107, 124, 125.

[35] Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487(88) (Washington, DC, October 1989); *Petroleum Marketing Monthly*, DOE/EIA-0380(90/03) (Washington, DC, June 1990).

Figure 3. U.S. Wholesale Distillate Fuel Oil Prices, 1989-1990



Sources: **Spot**: Reuter's News Service; **Monthly Average**: Energy Information Administration, *Petroleum Marketing Monthly* (October through May 1990).

increase in more than 7 years. Energy and food costs increases accounted for more than 60 percent of the increase. Fuel oil costs alone soared a record 27 percent in January. The monthly increase in the Consumer Price Index was only 0.5 percent in February, and even less in March, as heating oil prices eased.[36]

Trucking companies, some of the largest users of distillate fuel oil, responded to the rise in diesel fuel prices with rate surcharges of their own or by indexing freight rates to fuel costs. According to a weekly survey of truckstops by the Interstate Commerce Commission, diesel prices remained around $1.15 per gallon from mid-October through mid-December. By January 8, however, prices increased 25 percent to an average of $1.44 per gallon. Individual truckers reported paying more than $2 per gallon in Connecticut and Massachusetts.[37]

Wholesale prices were similarly affected by heating oil prices. The January increase in the Producer Price Index was 1.8 percent. But the December increase in prices had little effect on economic growth. In a typical U.S. household the average monthly distillate fuel oil bill increased $14 from October through February—not enough to significantly depress consumer demand and economic growth.[38]

During the winter of 1989-90, the amount of Federal funds available to assist low-income persons with heating bills was significantly less than it had been at its peak 5 years before. In terms of current dollars, only about two-thirds of what had been available in 1985 was available; in terms of constant dollars, only 58 percent of the 1985 amount was available.[39]

Advocates of low-income energy assistance argued that the December price increases merited additional appropriations. Programs in the Northeast quickly ran short of money and requested the balance of their Fiscal Year 1990 money months in advance. Congress agreed to provide more money, and on May 25, 1990, President Bush signed into law an emergency supplemental appropriations bill providing an additional $50 million.[40]

While the December runup in prices undoubtedly helped the profits of refiners and marketers who were holding stocks at the time of the price increase, in fact, refinery profits fared rather poorly during the 1989-90 heating season. Among other problems, product prices tended to fall faster than crude oil prices during the first quarter of 1990, weather problems and the cost of quickly changing refinery product slates increased operating costs, and sales were down sharply in the first quarter of 1990.

Compared with the same quarters the previous year, profits from the major oil companies refinery and marketing operations were 70 percent less in the last quarter of 1989 and 48 percent less in the first quarter of 1990. Independent refiners suffered comparable declines of 57 percent and 32 percent in their net income.[41]

Propane

Because shortages lasting more than a day or two occurred in some places, propane prices were more volatile than distillate fuel oil prices during the 1989-90 heating season. Yet, overall consumption was about the same as during the previous winter heating season. Domestic production and inventory withdrawals declined while imports increased in 1989-90, compared to the previous winter season.

Consumers affected by price increases and shortages were primarily residents of rural areas and small towns. Natural gas utilities also use propane to maintain pressure in distribution lines during peak demand periods. Natural gas customers, whose supplies have been interrupted, sometimes use propane as a substitute.[42]

Although overall propane consumption has been stable during the last two heating seasons, month-to-month consumption varied sharply. During October, November, and December 1989, propane consumption increased 9, 10, and 20 percent, respectively, compared to 1988. However, in January, February, and March 1990, propane consumption was down 16, 18, and 8 percent, respectively, compared to 1989. The November through February increases and decreases in consumption largely reflect weather patterns.[43]

Domestic production, the most important source of propane, made up 76 percent of consumption during the 1989-90 heating season. Although both petroleum refineries and natural gas-processing plants produce propane, more propane typically comes from natural gas processing plants than from refineries. Withdrawals from existing stocks supplied 16 percent of consumption in 1989-90, and net imports supplied the rest. Compared with 1988-89, production declined 3 percent and stock withdrawals declined 4 percent. Net imports grew 24 percent in 1989-90, from 7 to 9 percent of total consumption.

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[36] Hilary Stout, "Economy: Consumer Prices Climbed 1.1% During January," *Wall Street Journal* (New York, NY, February 22, 1990), p. A2; Energy Information Administration, *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (Washington, DC, June 1990), p. 15.

[37] Interstate Commerce Commission, "Diesel Fuel Prices," July 10, 1990; Lana Batts, "Heating Oil, Propane, and Diesel Fuel Price Increases," hearing before Subcommittee on Energy and Power of House Committee on Energy and Commerce, January 9, 1990.

[38] Hilary Stout, "Economy: Consumer Prices Climbed 1.1% During January," *Wall Street Journal* (New York, NY, February 22, 1990), p. A2. Energy Information Administration, *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (Washington, DC, June 1990), p. xi.

[39] Family Support Administration, "Summary Statistics on HHS Energy Assistance Programs, Fiscal Years 1981-1990" (March 15, 1990); Calculated from *Economic Report of the President* (Washington, DC, February 1990), p. 376.

[40] Lawrence Kelly, "Home Heating Fuels Crisis," hearings before the Senate Governmental Affairs Committee, January 16, 1990; U.S. House of Representatives, Committee Report 101-434; Family Services Administration, Low-Income Home Energy Assistance Action Transmittal No. FSA-AT-90-4, June 8, 1990.

[41] Energy Information Administration, *An Analysis of Heating Fuel Market Behavior 1989-1990*, SR/OG/90-01 (Washington, DC, June 1990), p. xi.

[42] Thomas W. Lipman and Alison Howard, "Cold Strains Nation's Energy Delivery System; Area Utilities, Faced with Record Usage, Ask Customers to Conserve," *Washington Post* (December 24, 1989); New Jersey Board of Public Utilities, An *Analysis of December 1989 Heating Oil Prices Increases* (February 5, 1990), pp. 7-8; Pennsylvania Energy Office, *Final Report: Heating Fuels Survey, 1989/1990 Heating Season* (Harrisburg, PA, April 16, 1990), p. 12.

[43] Data in this paragraph and the next four paragraphs: Energy Information Administration, *Petroleum Supply Annual 1989, Volume 1*, DOE/EIA-0340(89)/1 (Washington, DC, May 1990); *Volume 2*, DOE/EIA-0340(89)/2 (Washington, DC, June 1990); *Petroleum Supply Monthly*, DOE/EIA-0109(90/03) (Washington, DC, May 1990).

Propane production in the United States was lower than the previous year in each month of the 1989-90 heating season, except February when it was up 6 percent. Production was off 7 percent in both October and the cold month of December, as well as down 3 percent in November and January. Declines in November through January production were caused primarily by weather-related operating problems. February production increased as the industry rebuilt stocks.

Propane stocks began the 1989-90 heating season at a lower level than the previous year and sank to very low levels at the end of December (Table 6). At the beginning of October 1989, propane stocks in primary storage were just over 59 million barrels, about 6 percent below October 1, 1988. In December 1989, however, stock withdrawals amounted to 16.7 million

Table 6. U.S. Propane Stocks, 1988-1991
(Thousand Barrels)

	UNITED STATES					EAST COAST (PADD I)				
	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b
June	52196	49609	43990	-5	-11	3039	4030	3323	33	-18
July	58731	56517	48930	-4	-13	3726	4865	3365	31	-31
August	63594	60394	E 53000	-5	-12	4662	4823	E 3305	3	-31
September	63074	59047	--	-6	--	4901	4949	--	1	--
October	61771	53922	--	-13	--	4804	4858	--	1	--
November	59226	48224	--	-19	--	4916	4825	--	-2	--
December	50427	31528	--	-37	--	3847	1789	--	-53	--
January	45099	32979	--	-27	--	3868	2481	--	-36	--
February	36425	32171	--	-12	--	2921	2681	--	-8	--
March	32286	31103	--	-4	--	2298	2710	--	18	--
April	36734	31705	--	-14	--	2633	3009	--	14	--
May	43888	35584	--	-19	--	3049	3216	--	5	--

	MIDWEST (PADD II)					GULF COAST (PADD III)				
	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b	1988-1989 (a)	1989-1990 (b)	1990-1991 (c)	Percent Change (b-a)*100 a	Percent Change (c-b*100) b
June	17965	16594	16083	-8	-3	30390	27926	23632	-8	-15
July	20430	19503	18009	-5	-8	33532	30820	26412	-8	-14
August	22926	20514	E 20942	-11	2	34766	33629	E 27921	-3	-17
September	22917	19596	--	-14	--	33795	33025	--	-2	--
October	21390	16768	--	-22	--	34024	30833	--	-9	--
November	21116	14781	--	-30	--	31824	27311	--	-14	--
December	17408	9498	--	-45	--	28026	19093	--	-32	--
January	15372	11364	--	-26	--	25081	18271	--	-27	--
February	10612	10616	--	0	--	22286	18177	--	-18	--
March	9139	10749	--	18	--	20182	17109	--	-15	--
April	11524	11396	--	-1	--	21718	16674	--	-23	--
May	14088	13561	--	-4	--	25707	18046	--	-30	--

E=Estimated
Sources: Energy Information Administration, *Petroleum Supply Monthly*, (June 1990); *Petroleum Supply Annual 1989, Volume 2*, (June 1990) and predecessor publications; *Weekly Petroleum Status Report*, (September 7, 1990).

barrels, pulling stocks down to 31.5 million barrels. This level of inventories was 37 percent below December 31, 1988. Because of good weather and high domestic production, stocks remained stable through the balance of the season, finishing at 31.1 million barrels, nearly 4 percent below March 31, 1989.

Imports of propane during the 1989-90 heating season were greater than or equal to imports in each month of the previous heating season. December 1989 imports were more than double December 1988 imports. Propane imports did not increase in all parts of the country, however. The East Coast, the area most dependent on propane imports, saw a more than 60-percent decrease in imports from December 1988 to December 1989.

Although no distillate fuel oil dealers were reportedly unable to buy fuel oil for more than a few hours during the winter of 1989-90, the same could not be said of propane. In late December, many propane suppliers could get no more of their product to sell. Shortages were reported in the Northeast, upper Midwest, and as far south as Tennessee and Kansas. Residential customers received the first supplies and lower-priority commercial and industrial customers—like construction sites—were cut off selectively. Dealers also allocated supplies to spread the shortage and refused to accept new customers. Emergency supplies had to be trucked several hundred miles in some cases.[44]

In late December, Governor Madeleine M. Kunin of Vermont restricted propane dealers to making deliveries to tanks that were less than 10 percent full. In neighboring New Hampshire, the State ran an emergency propane distribution program. Using 100,000 gallons of propane from EnergyNorth, Inc., and Northern Utilities, Inc., (local natural gas distribution companies), the State made 18 allocations of propane to dealers who were unable to serve their residential heating customers. Deliveries were limited to 100 gallons and could only be made to customers whose tanks were below 5 percent full.[45]

Propane prices were even more volatile than distillate heating oil prices during the winter of 1989-90. This volatility was unusual because propane prices had been fairly stable for the past 3 years.

At the beginning of the heating season, propane prices were near those of the previous season, and during October and November they remained relatively flat. On December 1, residential propane prices ranged from 66 cents per gallon in Indiana to $1.06 per gallon in Massachusetts. After that, however, propane prices began to rise steadily. During the first half of December, residential prices rose an average of less than 8 cents per gallon, though they rose 19 cents in Massachusetts.

During the last half of December, prices rose very rapidly. Residential prices increased 19 to 40 cents per gallon, with the largest increases in New England and the Mid-Atlantic area. Prices peaked just after the first of the year. Vermont residential consumers paid $1.54 per gallon on January 11, 1990. Prices declined in February, but by May 1 they were still 6 to 8 cents per gallon above December 1 levels.

Outlook

Because of the current uncertainty about energy markets over the next several months, the Energy Information Administration has examined three supply and demand scenarios reflecting alternative estimates of world oil market conditions. These scenarios each include the assumption of constant nominal crude oil prices beginning in September 1990, with values of $20, $25, and $30 per barrel. The results of the $30 case are presented in this article.

Higher distillate fuel oil and propane prices were assured by Iraq's invasion of Kuwait. The answers to several outstanding questions will determine how much higher prices will go: Will the weather be normal this winter, both in the United States and Europe? Can U.S. refineries continue to operate at high rates of capacity utilization? How long will the standoff with Iraq last? Can lost crude oil production be made up by December? and, Will the already low propane inventories be adequate for this winter?

Distillate Fuel Oil

If crude oil prices remain at about $30 per barrel, distillate fuel oil consumers would pay at least 23 cents more per gallon this winter than last winter. This projection, in the September *Short-Term Energy Outlook*,[46] assumes normal weather and sluggish economic growth.

In the $30 case, retail prices for heating oil average $1.24 per gallon during the October 1990 through March 1991 heating season, compared to 99 cents per gallon during the previous season. Diesel oil would sell at $1.31 per gallon.

Wholesale distillate fuel oil prices—covering both heating oil and diesel—would be 89 cents per gallon during the October to March heating season. Distillate fuel oil prices in the New York wholesale spot market closed $1.01 per gallon on September 26, 1990.[47] Higher distillate fuel oil prices largely reflect higher crude oil prices, which would rise from $19.31 per barrel in the winter of 1989-90 to $30 per barrel this winter.

In addition to an average refiner acquisition cost for crude oil at $30 per barrel, this case assumes: 1) normal weather, 2) average annual growth in real Gross National Product during the 1990-91 heating season of 0.7 percent, and 3) a 1.4 percent increase in the industrial production index, compared to that of the winter of 1989-90.

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[44] "Big Freeze in US Adds Million BD to World Oil Demand," *Petroleum Intelligence Weekly* (New York, NY, January 1, 1990), p. 1.

[45] Thomas W. Lippman and Alison Howard, "Cold Strains Nation's Energy Delivery System; Area Utilities, Faced with Record Usage, Ask Customers to Conserve," *Washington Post* (Washington, DC, December 24, 1989); State of New Hampshire, *Energy Supply Crisis Review Board Report* (Concord, NH, February 14, 1990), p. 9.

[46] The full forecast appears in Energy Information Administration, *Short-Term Energy Outlook*, DOE/EIA-0202(90/3Q) (Washington, DC, September 1990).

[47] Reuters News Service.

In the $30 price scenario, distillate fuel oil consumption (product supplied) averages 3.3 million barrels per day during the 1990-91 heating season. Although this level is exactly the same as the 1989-90 heating season, it actually represents a drop in consumption when compared to the weather-adjusted level for the 1989-90 heating season, because the 1990-91 consumption number is weather-adjusted, as well. As with other petroleum products, increasing prices tend to reduce consumption of distillate fuel oil. For the first 7 months of 1990 consumption of distillate fuel oil was 3.06 million barrels per day, down slightly from 1989.

It is possible, however, that the winter of 1990-91 could be colder than normal. In the past 50 years about one-third of the winters were 5 percent colder or warmer than normal. The most recent National Oceanic and Atmospheric Administration forecast indicates the next 3 months will have a 55 percent chance of being below normal from lakes Michigan and Hurron to the Ohio River and eastward to the coast of the Mid-Atlantic region. A cold winter would lead consumers to draw down domestic inventories and increase pressure on prices.[48]

As always, domestic refinery production will supply the largest share of distillate fuel oil consumption. In the $30 case, U.S. refiners produce about 2.80 million barrels of distillate fuel oil per day during the 1990-91 heating season, compared to 2.97 million barrels per day during the 1989-90 heating season. In other words, refiners would supply 86 percent of total product supplied from current production in the 1990-91 season. During the previous heating season, they supplied 89 percent of consumption. For the first 7 months of 1990 production was 2.89 million barrels per day, up 3 percent from 1989.

It is not known how long the refinery industry can sustain currently high utilization rates. If operating and maintenance problems begin to proliferate, production levels will fall. A substantial reduction in capacity utilization would reduce stocks and put additional upward pressure on prices.

Gross imports of crude oil were equivalent to 45 percent of the crude oil input to domestic refineries during the 1989-90 heating season. The equivalent of 43 percent of crude inputs would be imported during this coming heating season. It is possible, however, that crude oil imports might be constrained by the availability of supply, if increases in overseas crude oil production are insufficient to offset the loss of Iraqi and Kuwait supplies. In that case, domestic inventories would be drawn down further, and additional price pressure would build in domestic markets. An estimated 4.3 million barrels per day of crude oil was lost to the world market as a result of trade sanctions against Iraq—more than in either the 1973 or 1979 oil disruption.

The second most important source of supply, net imports, would provide 246,000 barrels per day of the total distillate fuel oil consumed during the upcoming heating season, if world oil prices remain about $30. This would be 8 percent of the total consumption. During the 1989-90 heating season, imports supplied 7 percent of consumption. During this past heating season, Venezuela, the Virgin Islands, and Canada were the principal sources of imports. For the first 7 months of 1990 net imports were 237,000 barrels per day, down 2 percent from 1989.

It is possible, however, that cold weather in Europe or insufficient foreign crude supplies could constrain distillate fuel oil imports. Cold weather in Europe would make distillate fuel oil more valuable in Europe than the United States, and tend to draw imports toward Europe and away for the United States. Insufficient foreign crude supplies would simply mean reduced distillate fuel oil production. Both conditions would reduce domestic inventories and increase upward pressure on prices.

Finally, by December 31, 1990, U.S. stocks would reach 123 million barrels, 16 percent above 1989's ending value of 106 million barrels. By March 31, 1991, stocks would fall to 88 million barrels, compared to 100 million barrels at the end of March 1990. Thus, stocks would finish the heating season above the Minimum Operating Inventory, the level at which local supply disruptions can be expected. Stock drawdowns would provide 7 percent of the distillate fuel oil consumed in the 1990-91 season. During the previous heating season stock drawdowns supplied 4 percent of consumption.

At the end of August 1990, U.S. inventories of distillate fuel oil were about 130 million barrels, some 12 percent above the end of August 1989. Distillate fuel oil stocks on the East Coast—which consumes more distillate than any other area—were at about 56 million barrels, up 16 percent from last year.[49] Although increased domestic production is the key factor in increased distillate fuel oil inventories, the rest of the difference in inventories between August 1989 and August 1990 is attributable to lower consumption.

Propane

Although EIA does not project propane supply and disposition, current inventory levels and prices of propane fuel indicate the possibility of significant problems during the forthcoming winter. Propane inventory levels have never fully recovered from last winter's sudden cold spell in December and remain substantially below even last year. Inventories of propane at the end of August 1990 were at a level of 53 million barrels compared to 60 million barrels a year earlier (Table 6). Propane inventories in August 1990 were the lowest for that month in 20 years.

[48] Energy Information Administration, *Short-Term Energy Outlook*, DOE/EIA-0202 (89/4Q) (Washington, DC, October 1989), p. 39.

[49] Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (90-38) (Washington, DC, September 7, 1990), p. 10.

More than three-quarters the decline in stocks was on the Gulf Coast. At the end of August propane stocks in PADD III were 27.9 million barrels, 5.7 million barrels or 17 percent below the end of August 1989. In the Midwest, the region most affected by propane shortages last winter, primary propane stocks were 20.9 million barrels at the end of August, 0.4 million barrels above the end of August 1989. East Coast stocks at the end of August were 31 percent lower than last year.

Although primary propane stocks are lower this year than last year, through the end of June production was essentially the same, imports were up, and demand was down. This leads to the conclusion that stocks held at secondary (distributor) and tertiary (end-user) facilities may well be above normal levels. The buildup of propane stocks may be held by end-users in petrochemical plants. It is estimated that at least 10 to 20 million barrels of propane have moved into end-user stocks since the beginning of spring.

Current wholesale prices of propane are twice the level of the same time last year. These prices reflect the current high prices of crude oil and will remain high as long as crude oil remains high in price. Additionally, the high crude oil prices have resulted in even higher prices for ethane, butane, and naphtha, traditionally the competing products to propane for use as petrochemical feedstocks. Petrochemical companies, therefore, are continuing to purchase propane for feedstocks use later into the fall than usual. This presence will result in a continued diversion of some propane to the petrochemical industry and provide significant price competition to the heating fuels market thus keeping retail propane prices high probably throughout the season.

Should the forthcoming winter be anything other than normal or warmer than normal, current and projected inventory levels could prove inadequate and lead to shortages and significant price increases.

Additional Factors Affecting the Outlook

Although this outlook takes most factors affecting distillate fuel oil demand, supplies, and prices into account, no model can incorporate every facet of the market. Three factors not considered in constructing the model on which this forecast is based are: competition with natural gas pipelines in the Northeast, temporary effects of the 1989 price spike, and hedging of heating oil prices.

Natural Gas Pipelines

Greater availability of Canadian natural gas might slightly reduce distillate fuel oil consumption in the Northeast next winter. Subject to approval by the Canadian Government, Phase II of the Niagara Import Point projects has the potential of reducing distillate fuel oil consumption in the Northeast by 8 million barrels, or about 2.9 percent of annual consumption.[50]

The Northeast United States, including New England and New York, is the last major area of the country where distillate fuel oil has a significant share of the market for heating fuels.[51] Natural gas pipelines, which until now have often brought gas from faraway Texas, have not yet fully penetrated the Northeast. In the past few years, however, a series of pipelines have been proposed that will bring natural gas to New England from the western Canadian province of Alberta. Although natural gas in New England is generally more expensive than distillate fuel oil, promoters of the pipeline projects believe they can supply "new" gas at competitive prices.[52]

On May 2, 1990, the Federal Energy Regulatory Commission issued a certificate approving construction of the second phase of the "Niagara Import Point" projects. Phase II will provide capacity to import 206.5 million cubic feet of natural gas per day, including 81.5 million cubic feet per day for electricity cogeneration projects presently under construction. The gas would enter the United States near Niagara Falls and be transported to Maryland, Massachusetts, New Jersey, New York, and Rhode Island. Tennessee Gas Pipeline Co., National Fuel Gas Supply Corp., CNG Transmission Corp., and Texas Eastern Transmission Corp. are sponsoring the project. Completion of the project is expected in November 1990.[53]

Price Spike Effects

The sudden December 1989 price increase for distillate fuel oil will also have an effect—probably temporary—on conversion from oil heat to other fuels. While many utility, industrial, and commercial users have the ability to burn more than one kind of heating fuel and can make a choice based on price, residential consumers are usually tied to only one fuel. A survey conducted in late February for the East Coast Energy Council, an organization promoting oil heat, found that the percentage of customers who were considering converting from oil to natural gas went from 8 percent in August 1989 to 16 percent in February. The percentage of customers who were definitely switching went from 2 to 4 percent. In addition, conversions appear to be running 10 to 15 percent above previous years.[54]

[50] Calculated from Foster Natural Gas Report, "FERC Certificates NIP Projects Despite Absence of Long-Term Export Licenses: Trabandt Outlines Rate Levelization Concept for Imported Gas" (May 10, 1990), p. 8, and Energy Information Administration, *State Energy Data Report*, DOE/EIA 0214(88)(Washington, DC, April 1990).

[51] Energy Information Administration, *Housing Characteristics 1987*, DOE/EIA-0314(87) (Washington, DC, May 1989), pp. 45-47.

[52] Calculated from Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(90-03) (Washington, DC, June 1990), pp. 99, 107, 124, 125; "Conditional Order Granting Authorization to Import Natural Gas From Canada and Granting Intervention," DOE/FE Opinion and Order No. 368 (January 11, 1990).

[53] "FERC Certificates NIP Projects Despite Absence of Long-Term Export Licenses: Trabandt Outlines Rate Levelization Concept for Imported Gas," *Foster Natural Gas Report* (May 10, 1990), p. 8, and 51 FERC P61,113 (May 2, 1990).

[54] "Marketer Forum '90," *Fueloil & Oil Heat* (June 1990), p. 38ff.

Hedging

A third factor that the outlook does not take into account is hedging activity. Heating oil consumers responded to December 1989's sharp price increases by searching for ways to protect themselves against a recurrence of such events. So, for the coming heating season some fuel oil dealers offered heating oil at a fixed price, while others offered their customers price ceilings.[55]

Although some fuel oil dealers are using traditional methods to stabilize prices, an increasing number are using hedging tools. Traditionally, fuel oil dealers would hold down prices by purchasing oil relatively cheaply during the summer, storing it, and selling it at a fixed price during the winter. However, the high cost of oil storage has created incentives for dealers to purchase futures and options in the commodity markets. As defined by commodity traders, "hedging" is the use of futures or forward contracts in managing the risk associated with commodity ownership in order to maximize profits.[56]

During the January 1990 U.S. Senate hearings on heating oil price increases, at least two witnesses recommended that heating oil dealers and low income energy assistance programs purchase options or futures to protect their customers and clients from price increases. The National Association of Attorneys General recommended that Congress study whether low income energy assistance programs should be allowed to purchase futures contracts to lock in price and supply.[57] Favorable articles about futures have also appeared in the trade press.[58]

Three of the leading marketers of price "insurance," Global Petroleum Corp., Phibro Energy, Inc. and Northeast Petroleum Corp., report sharply increased interest in their products and some increased sales. Global's "Price Assurance Contract" offers a price cap, if prices increase, but requires dealers to pay higher-than-market prices, if prices fall. Phibro's "Energy Price Indexed Caps" offer a price ceiling, if prices increase. Northeast's program tailors contracts to the amount of risk the buyer wants to assume. All three programs are based on the use of options, or some combination of futures and options.[59]

Unlike stockpiling, the use of hedging offers fuel oil dealers some protection against falling prices. In addition, it offers aggressive oil dealers a way to increase their market share. However, traditionally, consumers have been unwilling to lock in prices at the beginning of the heating season, because prices might fall during the season. Dealers, too, have been unwilling to take on the complexities of commodity markets or construction of new storage facilities. Futures advocates also say that dealers benefit from existing price volatility, because they are able to fatten their profit margins when wholesale prices are falling.[60]

Although hedging offers an incentive to reduce inventories, hedging's effect on prices is less clear. Advocates of futures argue that they stabilize prices. If prices rise, futures or options would tend to reduce consumer prices; if prices fall, futures would tend to raise consumer prices. Futures advocates also argue that they tend to stabilize prices by spreading out fuel oil purchases over a longer time period.[61]

However, consumer groups argue that the reduced stocks brought on by the futures market tend to exaggerate price increases and decreases for those dealers and consumers not-particpating in the hedging process. They say that this increased volatility may end up costing consumers money.[61]

FOR ADDITIONAL OFFICIAL INFORMATION:

Weekly Petroleum Status Report: Weekly estimates of distillate: fuel oil consumption, production, stocks, and imports. Weekly spot distillate fuel oil prices; monthly residential distillate heating oil prices. Publication lags estimates by 6 days.

Petroleum Supply Monthly: Monthly data on distillate fuel oil and propane consumption, production, stocks, and imports. Publication lags data by about 60 days.

Petroleum Marketing Monthly: Monthly data on wholesale and retail propane, heating oil, and diesel fuel prices.
Publication lags data by about 70 days.

Short-Term Energy Outlook: Quarterly projections of distillate fuel oil consumption, production, stocks, imports, and heating oil and diesel prices. Publication normally lags the beginning of the quarter by 30 days.

Petroleum Marketing Annual: Annual data on distillate fuel oil sales by end use by state. Publication lags data by about 10 months.

Electronic Publication System: Data from the above publications and others in standard ASCII format. Free public access by dialing (202) 586-8658 at 300 to 2400 baud. Weekly estimates available at 5 p.m. Wednesday; monthly data available on the 20th of the month.

National Energy Information Center: Distributes above publications. Answers energy-related questions, including questions about propane and distillate fuel oil. Phone (202) 586-8800 between 8 a.m. and 5 p.m., Monday through Friday.

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[55] Telephone discussion with representative of New York State Energy Office, June 12, 1990.

[56] Philip K. Verleger, Jr., "The Role and Impact of Commodity Market Institutions in the Determination of Oil Prices," *Annual Review of Energy* (Palo Alto, CA, 1988), p. 374.[57] Philip K. Verleger, Jr., and Rutherford Poats, "Home Heating Fuels Crisis," hearings before the Senate Governmental Affairs Committee, January 16, 1990; National Association of Attorneys General, *Preliminary Report on the December 1989 Energy Crisis* (March 18, 1990), p. 17.

[58] See for example: J. Richard Shaner, "For Some Fuel Oil Dealers, Price Spikes Are Bonanzas," *National Petroleum News* (April 1990), pp. 16-17 and "Price drop leads to flurry of market-related deals," *Oil Marketing Bulletin*, (Bethesda, MD), April 16, 1990).

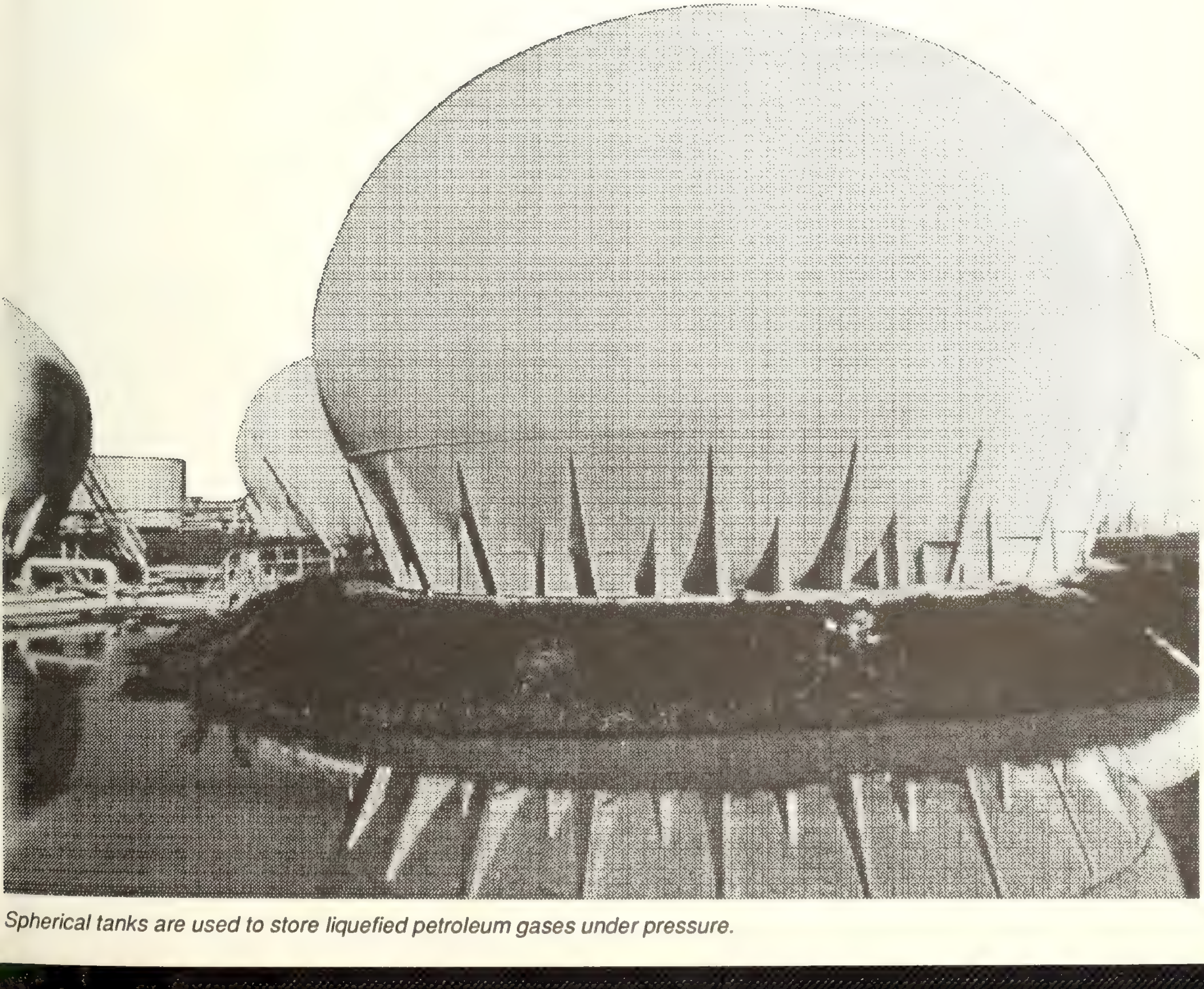
[59] Telephone discussions with company representatives June 11 and June 14, 1990.

[60] Philip K. Verleger, Jr., "Home Heating Fuels Crisis," hearings before the Senate Governmental Affairs Committee, January 16, 1990; telephone discussion with representative of New York Mercantile Exchange, June 12, 1990.

[61] Telephone discussion with representative of Northeast Petroleum, June 14, 1990.

[62] Joan Claybrook, "Heating Oil, Propane, and Diesel Fuel Price Increases," hearing before Subcommittee on Energy and Power of House Committee on Energy and Commerce, January 9, 1990.

Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Despite continued sluggish growth in the economy and industrial production, total petroleum product demand (measured as product supplied) in July 1990 was comparatively strong for this time of year. Demand of 16.9 million barrels per day was slightly below the June 1990 level, but was higher than levels for July 1989 and 1988 (Table H1). For the year to date, demand declined 1 percent from the comparable period of 1989, reflecting the slowdown in gross national product growth this year.

Gross imports increased in July, as an increase in crude oil imports more than offset a decline in product imports. Net imports, including the Strategic Petroleum Reserve (SPR), represented 46 percent of total product supplied during the first 7 months of 1990. Net imports accounted for 42 percent of demand during the same period in 1989.

Information about the effects of the Persian Gulf situation on world oil markets, and the oil spill legislation begin on page xxxii.

Other July 1990 highlights include:

- Year-to-date demand for motor gasoline remained below comparable 1989 and 1988 levels. Finished motor gasoline stocks increased in July, but were well below the normal level for this time of year.
- Unusually high refinery production of distillate fuel oil helped to keep the stock buildup for the winter heating season well ahead of 1989. Ending stocks were at the highest July level since 1983.
- Higher residual fuel oil spot prices in July had a moderating influence on demand, as some utilities equipped with dual-fuel boilers switched to natural gas. Ending stocks remained high, and were at the highest level for July since 1984.
- Stocks of liquefied petroleum gases (LPGs) increased in July, but were well below the year-earlier level, as

New legislation requiring double hulls for all new tankers and establishing a 15-year phase-out schedule for most single-hull tankers and barges was signed into law in August. About 90 percent of U.S. petroleum imports arrive by tanker.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1990			1989	January — July	
	July	June	Difference[a]	July	1990	1989
Products Supplied	16.9	17.1	-0.3	16.5	16.9	17.2
Finished Motor Gasoline	7.4	7.5	-0.1	7.3	7.2	7.3
Distillate Fuel Oil	2.7	2.9	-0.3	2.6	3.0	3.1
Residual Fuel Oil	1.3	1.4	-0.1	1.3	1.3	1.4
Liquefied Petroleum Gases	1.4	1.2	0.2	1.3	1.5	1.6
Other Petroleum Products[b]	4.1	4.1	(s)	3.9	3.9	3.7
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	14.2	13.7	0.5	13.8	13.5	13.3
Operable Utilization Rate (percent)	92.6	89.4	3.2	88.9	87.8	86.0
Imports	8.9	8.7	0.2	8.4	8.5	8.0
Crude Oil	6.8	6.4	0.4	6.2	6.2	5.7
Strategic Petroleum Reserve	0.0	(s)	(s)	0.1	(s)	0.1
Other	6.8	6.4	0.4	6.1	6.2	5.6
Products	2.1	2.3	-0.2	2.2	2.3	2.3
Finished Motor Gasoline	0.4	0.4	(s)	0.4	0.4	0.4
Distillate Fuel Oil	0.2	0.3	(s)	0.3	0.3	0.3
Residual Fuel Oil	0.5	0.5	(s)	0.6	0.6	0.7
Liquefied Petroleum Gases	0.2	0.2	(s)	0.2	0.2	0.2
Other Petroleum Products[b]	0.8	0.9	-0.1	0.7	0.8	0.8
Exports	0.7	0.8	-0.1	0.8	0.8	0.8
Crude Oil	0.1	0.1	(s)	0.1	0.1	0.2
Products	0.6	0.7	-0.1	0.7	0.7	0.7
Total Net Imports	8.2	7.9	0.3	7.6	7.7	7.2
Stock Change[c]	0.9	0.4	0.4	1.3	0.6	0.2
Crude Oil	-0.2	0.1	-0.2	0.1	0.2	0.1
Products	1.0	0.3	0.7	1.2	0.4	0.2
Total Stocks at End of Period (million barrels)	1,711	1,684	27	1,649	–	–
Crude Oil	966	971	-5	908	–	–
Strategic Petroleum Reserve	587	587	0	574	--	--
Other	380	384	-5	333	--	--
Products	744	713	32	741	–	–
Finished Motor Gasoline	180	176	5	190	--	--
Distillate Fuel Oil	125	109	16	115	--	--
Residual Fuel Oil	49	47	2	43	--	--
Liquefied Petroleum Gases	112	104	8	118	--	--
Other Petroleum Products[b]	278	277	1	276	--	--

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly*, see Explanatory Note 5.

propane stocks continued to be lower than normal for this time of year. Demand for propane increased in July.

- Although crude oil stocks (excluding the SPR) declined slightly in July, stocks were at the highest level for July since 1981.
- Continued emphasis on summer motor gasoline production led to a further increase in the operable refinery utilization rate.

Motor Gasoline

Demand for motor gasoline edged downward during July to 7.4 million barrels per day. This was slightly above the July 1989 level. Year-to-date demand for motor gasoline was 1 percent below the level for the comparable period of 1989, even though highway travel increased moderately.[1] One reason may be a slight increase in gasoline mileage resulting from the effects of lower summer gasoline volatility. Lower volatility gasolines have a slightly higher energy level.[2]

Stocks of finished motor gasoline rose slightly to 180 million barrels in July. This was well below the level at the end of July 1989, but was close to the July 1988 level. Except for July 1988 and this year, finished motor gasoline stocks at the end of July have been around 190 million barrels in recent years.

Distillate Fuel Oil

The stock buildup of distillate fuel oil in preparation for the winter heating season was well ahead of 1989 in July. Stocks at the end of July of 125 million barrels represented the highest July level since 1983. Refinery production of distillate fuel oil of 3.0 million barrels per day was the highest July level since the late 1970's, and helped to push stocks well above the year-earlier level.

Residual Fuel Oil

Higher spot prices for residual fuel oil in July had a moderating influence on demand, despite seasonally hot weather which contributed to increased generation of electricity. With the firming of residual fuel oil prices, some utilities with fuel-switching capability went back to burning natural gas. Residual fuel oil demand declined from the unusually high June level to 1.3 million barrels per day. Year-to-date demand was 7 percent below the level for the comparable period in 1989.

The decline in demand contributed to the increase in stocks in July to 49 million barrels. This was the highest level for the end of July since 1984, and well above the level for July 1989.

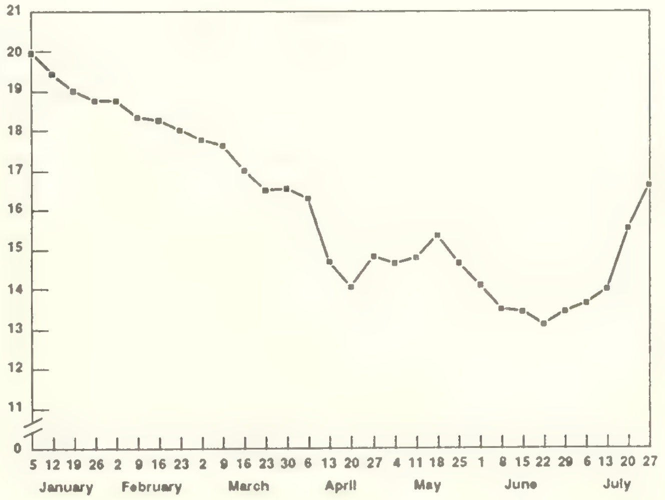
Liquefied Petroleum Gases

Stocks of LPGs increased substantially in July to 112 million barrels, but were well below the unusually high level of a year earlier. Butane stocks hit a record high for July of 33 million barrels, as refiners began to build up inventories for the winter gasoline blending period.[3] Propane stocks increased somewhat from the June 1990 level to 49 million barrels, but remained substantially below year-earlier levels, especially in PAD Districts II and III. Increased demand for propane in July, resulting from continued early purchasing by consumers seeking to avoid a possible supply shortage during the coming winter, contributed to the below-normal stock level for propane.

Crude Oil

The world price of crude oil increased steadily after hitting the 1990 low price of $13.09 per barrel on June 22, 1990. By the end of July, however, the world price was still under $17.00 per barrel (Figure H1). Crude oil at these prices stimulated imports (excluding the SPR), which increased in July to 6.8 million barrels per day. Imports were the highest since October 1979. For the first 7 months of 1990, imports of crude oil were 11 percent above the level for the same period of 1989.

Figure H1. **World Price of Crude Oil**
(Dollars Per Barrel)



Sources: Energy Information Administration, *Weekly Petroleum Status Report,* Table 12.

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[1] U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends*, June 1990, Table 2.

[2] "Reduced Gasoline Volatility Levels Putting Damper on Demand," *The Oil Daily*, August 3, 1990, p. 5.

[3] *Pace Petrochemical Service*, September 1990, p. 39.

Stocks of crude oil (excluding the SPR) declined slightly in July to 380 million barrels, but were at the highest level for July since 1981.

Refinery Utilization

The operable refinery utilization rate increased in July to 92.6 percent, as high summer motor gasoline production continued. Refinery utilization in July was well above the July 1989 refinery utilization rate of 88.9 percent. Gross inputs (crude and other oils) to atmospheric crude oil distillation units increased to 14.4 million barrels per day. The operating utilization rate, which reflects refinery utilization if all idle capacity is removed, increased to 95.8 percent in July 1990 (Table H2).

News Highlights

Persian Gulf Situation and Petroleum Markets

The sharp rise in oil prices since the Iraqi invasion of Kuwait on August 2, 1990, and the United Nations embargo are continuing to affect petroleum markets worldwide. Countries that were trading partners with Iraq and Kuwait, as well as countries that relied on them for oil or for jobs, are feeling the strain. Production increases by other producing countries have begun filling the gap caused by the loss of approximately 4.3 million barrels per day of Iraqi and Kuwaiti oil. Additional crude oil production by these countries is expected to reach 3.3 million barrels per day by the end of the year.

Possible production increases in the United States could further offset the loss of crude oil supplies. Based on an assumed world oil price of $30 per barrel, the Energy Information Administration (EIA) forecasts that an additional 220,000 barrels per day of crude oil will be produced domestically during the fourth quarter of 1990. In addition, the Department of Energy is involved in mediation of a dispute between Chevron Corporation and the State of California over the Point Arguello offshore oil field. The field, which lies 50 miles off the coast of California, is capable of producing 50,000 to 75,000 barrels of crude oil per day within a 6-month time frame, should the dispute be settled.

Effects on World Markets

In addition to problems caused directly by the loss of Iraqi and Kuwaiti crude oil on the world market, developing countries have felt further economic losses as a result of the current

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1989-1990
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1989												
Gross Refinery Inputs	13,502	12,974	13,131	13,123	13,566	14,067	13,957	14,024	13,898	13,533	13,549	13,244
Operable Refinery Capacity	15,655	15,671	15,669	15,687	15,692	15,698	15,698	15,706	15,722	15,722	15,732	15,761
Idle Capacity[1]	**643**	**707**	**738**	**743**	**683**	**575**	**602**	**632**	**759**	**775**	**626**	**644**
Idle Three Months or Less	175	233	225	180	140	46	50	80	211	201	51	66
Idle More than Three Months	468	474	513	563	543	529	552	552	548	574	575	578
Operating Capacity[2]	15,012	14,964	14,931	14,944	15,008	15,124	15,097	15,075	14,963	14,946	15,106	15,117
Utilization Rate (percent)												
Operable Capacity	86.2	82.8	83.8	83.7	86.5	89.6	88.9	89.3	88.4	86.1	86.1	84.0
Operating Capacity	89.9	86.7	87.9	87.8	90.4	93.0	92.4	93.0	92.9	90.6	89.7	87.6
1990												
Gross Refinery Inputs	13,628	13,653	13,047	13,234	13,570	13,886	14,397	NA	NA	NA	NA	NA
Operable Refinery Capacity	15,533	15,540	15,498	15,496	15,527	15,527	15,543	NA	NA	NA	NA	NA
Idle Capacity[1]	**550**	**578**	**712**	**729**	**621**	**621**	**507**	**NA**	**NA**	**NA**	**NA**	**NA**
Idle Three Months or Less	135	154	293	258	133	130	34	NA	NA	NA	NA	NA
Idle More than Three Months	415	424	419	471	488	491	473	NA	NA	NA	NA	NA
Operating Capacity[2]	14,983	14,962	14,786	14,767	14,906	14,906	15,036	NA	NA	NA	NA	NA
Utilization Rate (percent)												
Operable Capacity	87.7	87.9	84.2	85.4	87.4	89.4	92.6	NA	NA	NA	NA	NA
Operating Capacity	91.0	91.3	88.2	89.6	91.0	93.2	95.8	NA	NA	NA	NA	NA

[1] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

[2] Operating capacity equals the operable capacity less the total idle capacity.

NA= Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, 1990 issues, Table 18; *Petroleum Supply Annual*, Volume 2, 1989, Table 16; Form EIA- 810, "Monthly Refinery Report."

Persian Gulf crisis. Many Asian and Middle Eastern countries such as India, Pakistan, Jordan, Egypt, and Turkey relied on the millions of dollars in income from thousands of countrymen working in Iraq or Kuwait.[4,5] The jobs brought hard currency into these developing countries and contributed substantially to their economies. An additional loss to some of these countries was the elimination of major trading partnerships with Iraq or Kuwait. Other countries, including several African nations that have no alternative technology to replace oil, and the Philippines where the government subsidizes the price of oil to consumers, are facing economic hardship because of the sharp price rise.[6,7]

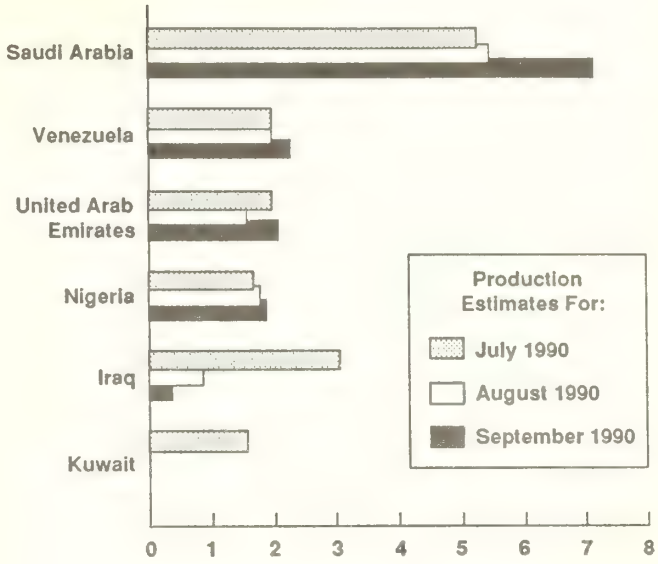
Brazil, a major trading partner with Iraq before the invasion and, until this year, a principal supplier of motor gasoline to the United States, must find a replacement source for approximately 200,000 barrels per day of crude oil no longer available from Iraq and Kuwait. Iran and Venezuela have been negotiating with Brazil to replace the missing oil. Brazil was a major supplier of motor gasoline to the United States in recent years because the Brazilian government sponsored a program to replace motor gasoline in Brazil with alcohol-based fuel a few years ago. Brazil then increased its exports of motor gasoline, providing about 20 percent of U.S. gasoline imports in 1987 and 1988. The portion decreased somewhat in 1989 because problems with the alcohol fuel program in Brazil caused an increase in motor gasoline demand there. During the first 7 months of 1990, Brazil accounted for 6 percent of U.S. imports of motor gasoline.

OPEC Production Increases

Crude oil production by the Organization of Petroleum Exporting Countries (OPEC) declined in August from 23.2 million barrels per day to about 19.7 million barrels per day.[8] Most of the decline was in Iraqi and Kuwaiti production, but an additional decline was due to a decision by the United Arab Emirates to keep its production within its newly raised quota (Figure H2). The effects of the August decline were starting to be felt in mid-September, because of the 6-week lag time for tanker delivery to many world ports from the Persian Gulf area.

On August 29, 1990, OPEC members passed a resolution allowing member countries with excess production capacity to produce above their quotas to help fill the shortfall in production from Kuwait and Iraq. Saudi Arabia, the United Arab Emirates, Nigeria, Libya, and Venezuela then increased production. OPEC production for September is expected to be about 21.9 million barrels per day, 2 million barrels per day above the August level, but well below the pre-invasion level in July of 23.2 million barrels per day.

Figure H2. **Major Changes in Crude Oil Production for Selected OPEC Countries**
(Million Barrels Per Day)



Source: *The Wall Street Journal*, September 10, 1990, p. A2.

The OPEC resolution to increase production was aimed at helping poor countries that have been hit hard by the Persian Gulf crisis. The additional supplies of OPEC crude oil will be directed toward the poor and developing nations first, because more affluent countries can draw on their own reserves or pay market prices for crude oil from other sources.

The replacement of Iraqi and Kuwaiti crude oil with oil from other sources poses problems for many countries, because they lack the funds to pay the higher prices, and the new supplies are often lower quality crude oils that are not compatible with the specifications of the countries' refineries.

Jet Fuel Supplies

Of the refined products, the international embargo of Iraqi and Kuwaiti oil has had its greatest impact so far on the price and availability of jet fuel in the world. Jet fuel supplies from Saudi Arabia were diverted from foreign markets in late August in order to accommodate the fuel needs for the military buildup there, and supplies were cut off from Kuwait, which had become a major supplier of jet fuel for commercial and military use.

The sharp increase in jet fuel prices following the Iraq invasion of Kuwait prompted most of the world's airlines to seek fare increases of 7 to 8 percent on international flights, to

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[4] "India's Fragile Economy Hurt by Gulf Crisis," *The Washington Post*, September 13, 1990, pp. E1 and E3.
[5] "World Bank, IMF Working on Plan to Aid Countries Hurt by Crisis, "*The Washington Post*, September 13, 1990, p. E3.
[6] "Expected Fuel Price Increases in the Philippines Threaten to Worsen Aquino's Crisis of Confidence." *The Wall Street Journal*, September 10, 1990, p. A9A.
[7] "African Oil-Producers See Bonanza, But Other Nations Expect Hardships," *The Washington Post*, September 7, 1990, p. A25.
[8] "OPEC Production Rises, but Reaching Pre-Crisis Levels Could Take Awhile," *The Wall Street Journal*, September 10, 1990, pp. A2 and A4.

go into effect on October 1, 1990.[9] On August 30, U. S. domestic carriers imposed a fare increase of 5.3 percent. Fuel accounts for as much as 30 percent of an airline's operating costs and, with little capacity to store fuel as a hedge against possible price increases or supply disruptions, airlines were immediately affected by the price escalation.

The military buildup in Saudi Arabia has increased U.S. military demand for domestic supplies, for flights carrying troops, supplies, and equipment to Saudi Arabia. Military use of U.S. supplies of jet fuel had been declining before the invasion because of reductions in military operations that had recently occurred. Military use accounted for approximately 20 percent of U.S. jet fuel demand until this year, when reductions in military operations resulted in a decline to about 15 percent before the invasion on August 2.[10]

In addition to domestic supplies for U.S. military use, other countries provide jet fuel and other products to U.S. military bases around the world. Kuwait was the principal source for the U.S. military's aircraft fuel needs in the western Pacific region, which includes Japan and the Philippines. The inability of Kuwait to fulfill its contracts has required the military to look for other sources of supply.[11] The supply problem was compounded somewhat by a reduction in military inventories in recent months related to the reduced military operations.

Jet fuel represents about 70 percent of U.S. military petroleum use throughout the world; the rest is primarily distillate and residual fuel oil for use in ships. Direct peacetime U.S. military fuel use, including jet fuel and fuel oil, is about 500,000 barrels per day. The EIA estimates that U.S. military operations in the Persian Gulf added approximately 300,000 barrels per day to peacetime needs. The additional supplies are being provided by the United States, Europe, and Persian Gulf allies.

Primary stocks of jet fuel (naphtha- and kerosene-type) in the United States at the end of July 1990 were very high at 51 million barrels, compared with 47 million barrels at the end of July 1989. As of September 14, 1990, stocks were at 50 million barrels, slightly higher than the levels at the end of both August and September 1989.

President Bush Signs Oil Spill Bill

On August 20, 1990, President Bush signed the Oil Pollution Liability and Compensation Act of 1990. The Act sets standards for tanker construction and crew certification, outlines Federal oil spill response procedures, and authorizes multi-agency research and development. It also sets liability for tankers, offshore and onshore facilities, and deepwater ports. It establishes a fee of 5 cents per barrel on oil, which will go into a $1 billion Federal oil spill cleanup fund. The fund will be used to pay claims in excess of the spiller's maximum liability, or when the spiller is unknown. The Act also forbids oil and gas development off the coast of North Carolina.

The new legislation requires double hulls for all new tankers, and establishes a 15-year phase-out schedule for most single-hulled tankers and barges.

The recently passed oil spill legislation was before Congress several times over the past 15 years in one form or another. A major impediment to the passage was a difference between the House of Representatives, which supported international spill liability agreements that limited liability, and the Senate, which did not want to limit the rights of States to impose unlimited liability. The Act allows for unlimited liability in cases where gross negligence or willful misconduct is involved, and does not preclude States from imposing unlimited liability. In 17 of the 24 coastal States, there are now regulations that impose unlimited liability on tanker owners for oil spills.

The State laws have prompted several international shippers to stop delivering oil to U.S. mainland ports because of the substantial financial risk involved. The British Royal Dutch/Shell Group, Elf Aquitaine of France, Petrofina SA of Belgium, A.P. Moller of Denmark, and Teekay Shipping of the United States have all announced that they will deliver oil by tanker in the United States only to the Louisiana Offshore Oil Port (LOOP). The LOOP is a terminal located off the coast of Louisiana.

In 1989, ships owned by these companies delivered about 6 percent of U.S. petroleum imports. At least one-third of the 464,000 barrels per day known to be delivered to U.S. ports by these companies in 1989 was offloaded at the LOOP.[12] About 90 percent of U.S. petroleum imports arrive by tanker.

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[9] "Fares to Rise On Foreign Flights," *The New York Times*, September 5, 1990, pp. D1 and D7.

[10] U.S. Department of Defense, Defense Fuel, Supply Center, personal communication, July 23, 1990.

[11] "OPEC Approves Higher Output," *The Washington Post*, August 30, 1990, p. A33.

[12] *Oil and Gas Journal*, July 30, 1990, p. 25.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	10,975	9,208	1,738	-11	146	17,308	1,008
1974 Average	10,498	8,774	1,688	62	117	16,653	[h]1,074
1975 Average	10,045	8,375	1,633	[h]17	[h]15	16,322	1,133
1976 Average	9,774	8,132	1,603	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	[h]1,392
1981 Average	10,230	8,572	1,609	[h]290	[h]-130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	[h]1,430
1983 Average	10,299	8,688	1,559	[h]214	[h]-234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 January	9,876	8,250	1,579	-43	-294	17,403	1,597
February	10,018	8,374	1,605	133	-868	17,760	1,576
March	10,071	8,374	1,636	219	-748	17,612	1,559
April	9,946	8,288	1,618	190	445	16,561	1,578
May	9,899	8,229	1,627	96	1,048	16,197	1,614
June	9,833	8,170	1,616	43	-109	17,059	1,612
July	9,713	8,040	1,618	-261	819	16,695	1,629
August	9,762	8,079	1,616	-488	307	17,482	1,624
September	9,575	7,895	1,621	-83	245	17,072	1,628
October	9,737	8,023	1,661	399	-333	17,580	1,630
November	9,751	8,023	1,666	3	25	17,620	1,631
December	9,641	7,942	1,634	-188	-911	18,365	1,597
Average	**9,818**	**8,140**	**1,625**	**1**	**-29**	**17,283**	--
1989 January	9,678	7,937	1,664	179	563	17,269	1,620
February	9,441	7,788	1,607	47	-733	17,920	1,601
March	9,284	7,575	1,650	-127	-924	17,989	1,568
April	9,501	7,772	1,674	494	413	16,624	1,596
May	9,498	7,816	1,620	271	598	16,546	1,623
June	9,188	7,624	1,507	-434	-64	17,497	1,608
July	9,055	7,444	1,541	148	1,182	16,453	1,649
August	9,106	7,544	1,504	283	-104	17,360	1,654
September	9,096	7,548	1,480	-144	577	16,795	1,667
October	8,983	7,453	1,478	73	-378	17,304	1,658
November	9,084	7,536	1,483	541	-367	17,311	1,663
December	8,734	7,337	1,343	-302	-2,335	18,858	1,581
Average	**9,219**	**7,613**	**1,546**	**86**	**-129**	**17,325**	--
1990 January	[E]9,113	[E]7,522	1,525	377	1,189	16,968	1,632
February	[E]9,093	[E]7,465	1,558	-316	577	17,024	1,639
March	[E]8,986	[E]7,394	1,519	1,030	-883	17,083	1,643
April	[E]8,883	[E]7,331	1,481	-94	-25	16,666	1,640
May	[E]8,838	[E]7,259	1,499	501	505	16,843	1,671
June	[E]8,602	[E]7,076	1,453	75	348	17,112	1,684
July*	[RE]8,694	[RE]7,144	[R]1,480	[R]-152	[R]1,019	[R]16,856	[R]1,711
August**	[PE]8,697	[PE]7,150	[E]1,477	[E]*-227*	[E]*149*	[E]*17,849*	[E]*1,704*
8-Mo. Average	[PE]**8,861**	[PE]**7,291**	[E]**1,498**	[E]**156**	[E]**359**	[E]**17,052**	--
1989 8-Mo. Average	**9,343**	**7,686**	**1,596**	**109**	**126**	**17,200**	--
1988 8-Mo. Average	**9,889**	**8,224**	**1,614**	**-16**	**82**	**17,093**	--

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			Net Imports[g]
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	472	235	237	7,984
1980 Average	6,909	5,263	1,646	544	287	258	6,365
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 January	7,181	4,662	2,519	885	206	679	6,296
February	7,256	4,650	2,605	864	146	718	6,392
March	6,944	4,868	2,076	834	213	622	6,110
April	7,270	5,167	2,103	676	114	562	6,594
May	7,469	5,339	2,130	814	138	676	6,655
June	7,239	5,322	1,917	938	138	800	6,301
July	7,297	5,100	2,197	826	186	640	6,471
August	7,386	5,089	2,296	814	152	661	6,572
September	7,506	5,212	2,294	673	119	554	6,833
October	7,830	5,551	2,279	732	166	566	7,098
November	7,714	5,070	2,644	717	148	569	6,997
December	7,727	5,230	2,497	1,008	129	879	6,719
Average	7,402	5,107	2,295	815	155	661	6,587
1989 January	8,255	5,661	2,594	761	137	624	7,494
February	8,032	5,305	2,727	875	208	666	7,157
March	7,456	5,035	2,421	860	156	704	6,596
April	8,078	5,750	2,328	810	139	670	7,268
May	7,778	5,729	2,049	791	131	661	6,986
June	7,977	5,976	2,002	975	243	732	7,002
July	8,369	6,214	2,155	780	69	711	7,589
August	8,560	6,565	1,995	967	162	805	7,593
September	8,002	6,028	1,975	655	32	623	7,347
October	8,301	6,187	2,115	791	61	730	7,511
November	8,341	6,171	2,170	975	120	855	7,366
December	7,579	5,463	2,116	1,067	247	821	6,512
Average	8,061	5,843	2,217	859	142	717	7,202
1990 January	9,147	6,206	2,941	710	132	578	8,437
February	8,306	5,858	2,447	822	102	720	7,483
March	7,925	6,125	1,800	881	133	748	7,045
April	7,758	5,740	2,018	761	112	649	6,997
May	8,738	6,438	2,300	690	112	578	8,048
June	8,690	6,413	2,276	804	88	715	7,886
July*	R 8,893	R 6,812	R 2,081	R 696	R 89	R 606	R 8,197
August**	E *8,897*	E *6,717*	E *2,180*	E 745	E 100	E 644	E 8,152
8-Mo. Average	E 8,550	E 6,296	E 2,254	E 763	E 109	E 654	E 7,787
1989 8-Mo. Average	8,064	5,785	2,279	852	155	697	7,212
1988 8-Mo. Average	7,255	5,026	2,229	831	162	669	6,424

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

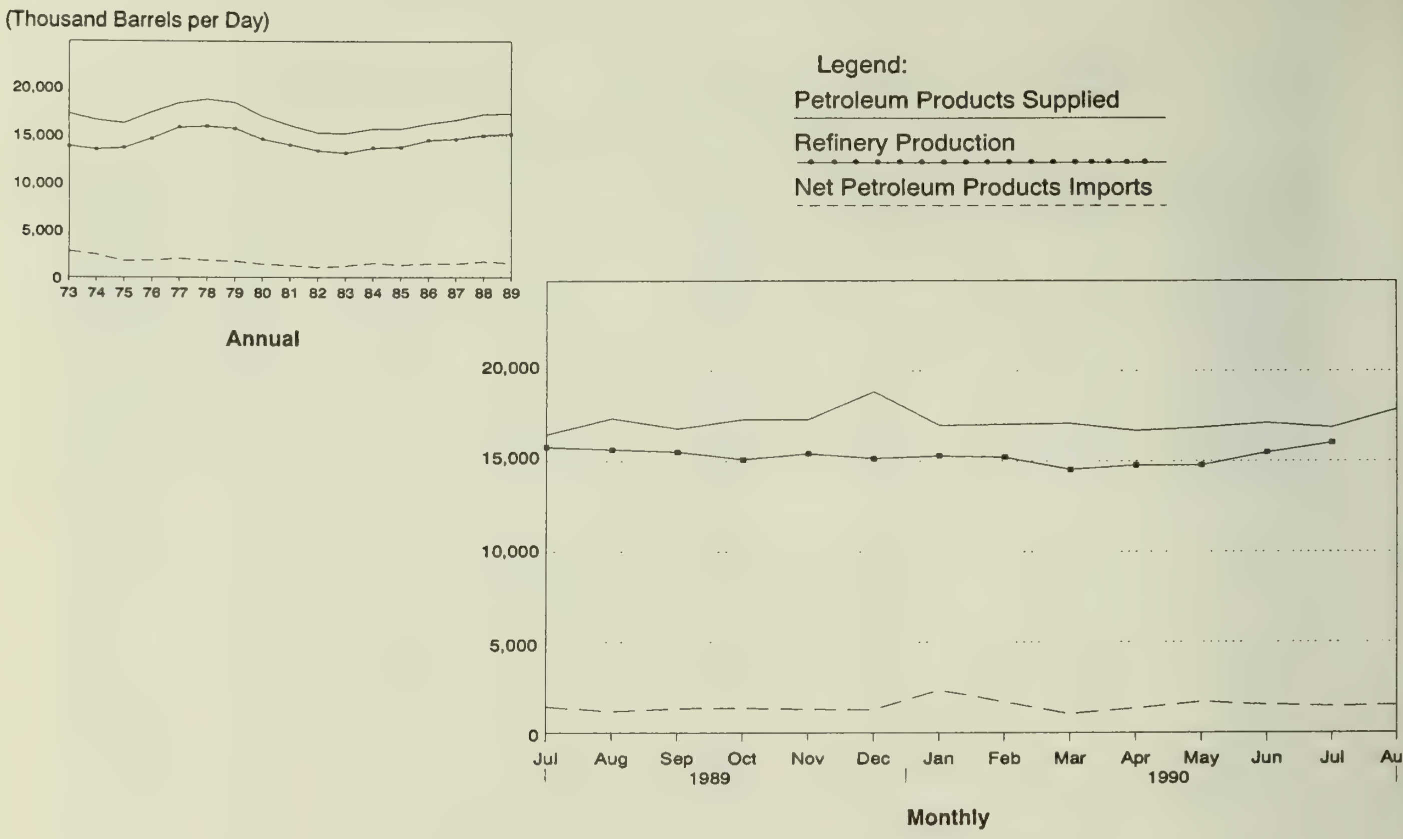

Figure S2. Petroleum Products Supplied

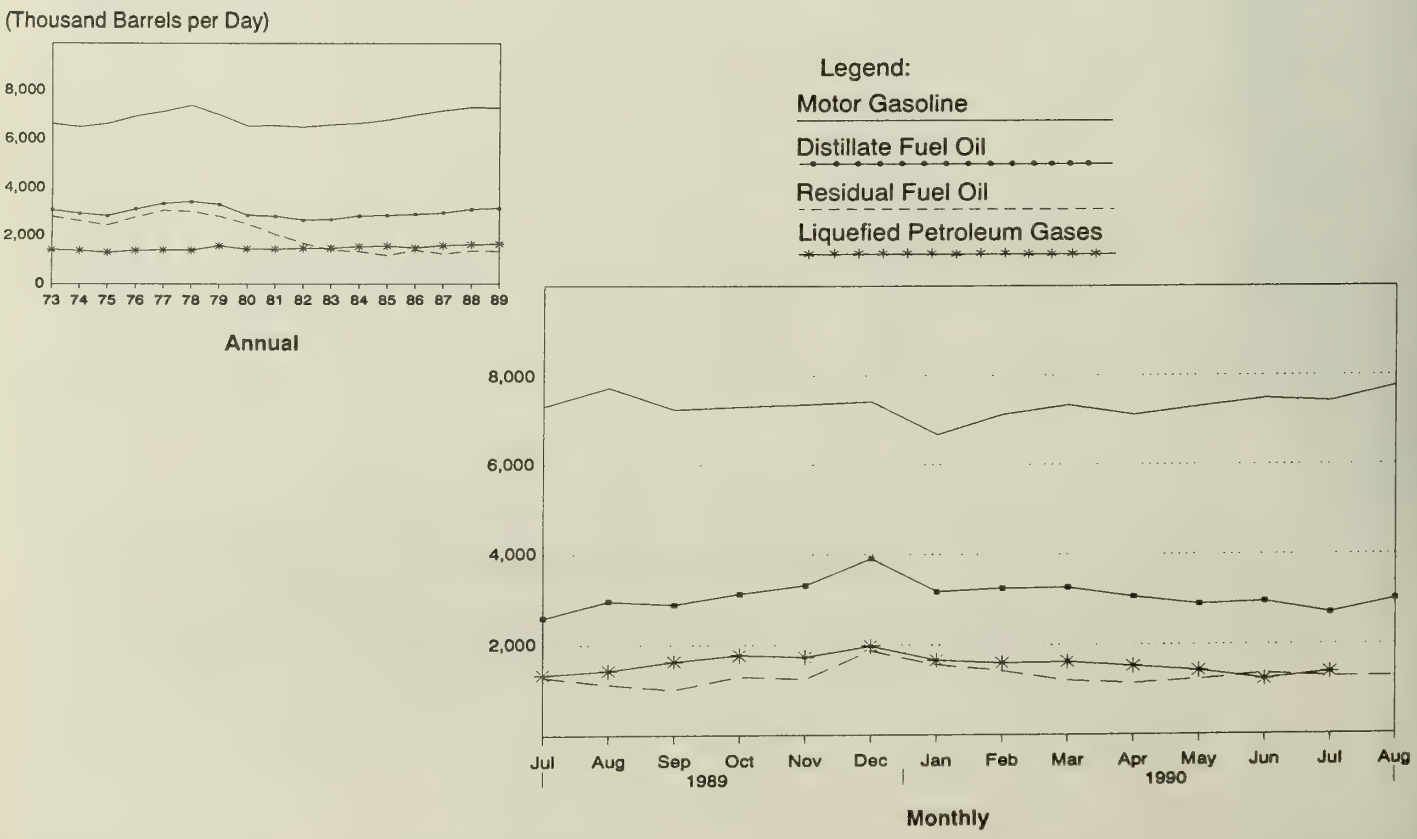

Figure S3. Crude Oil Supply and Disposition

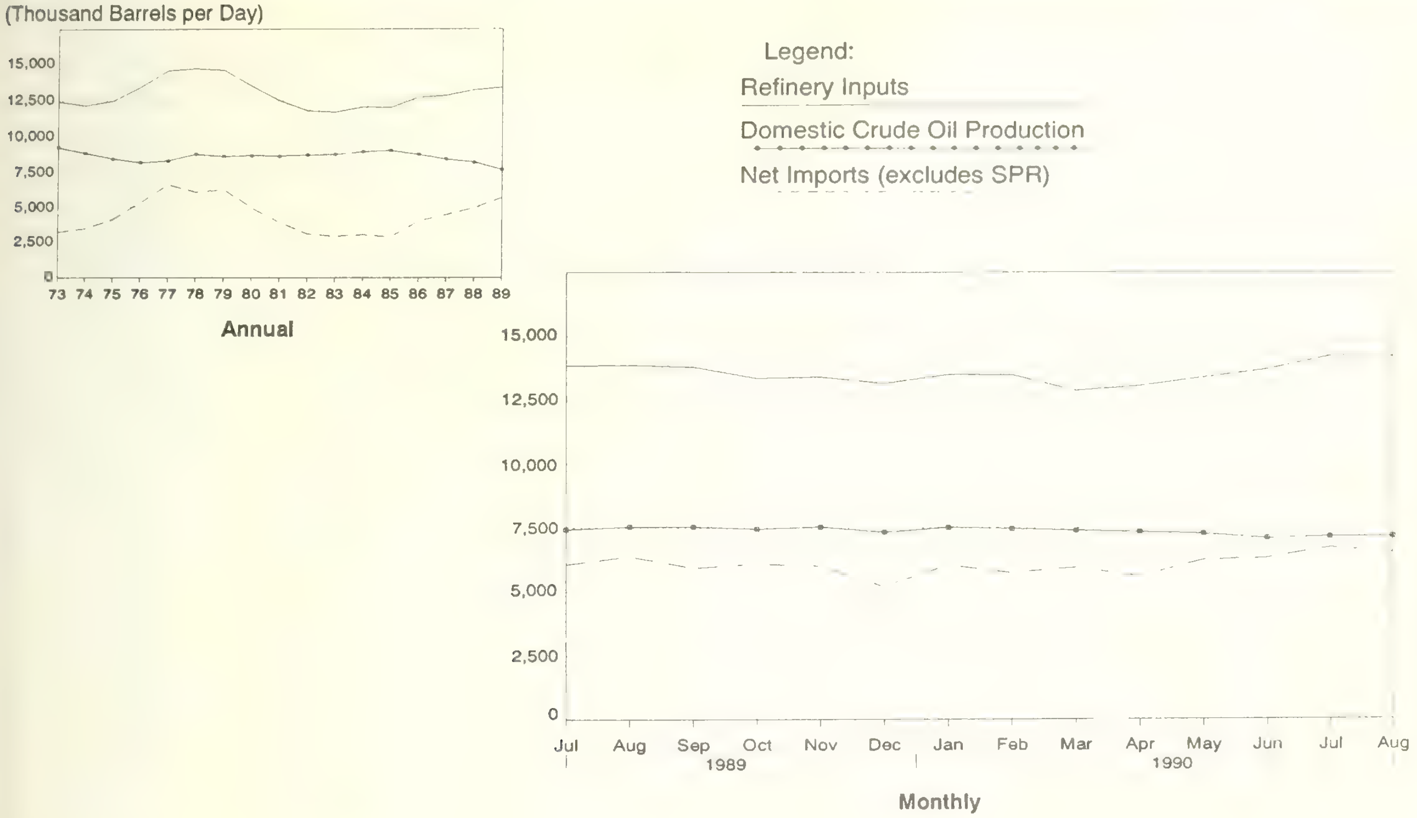

Figure S4. Crude Oil Ending Stocks

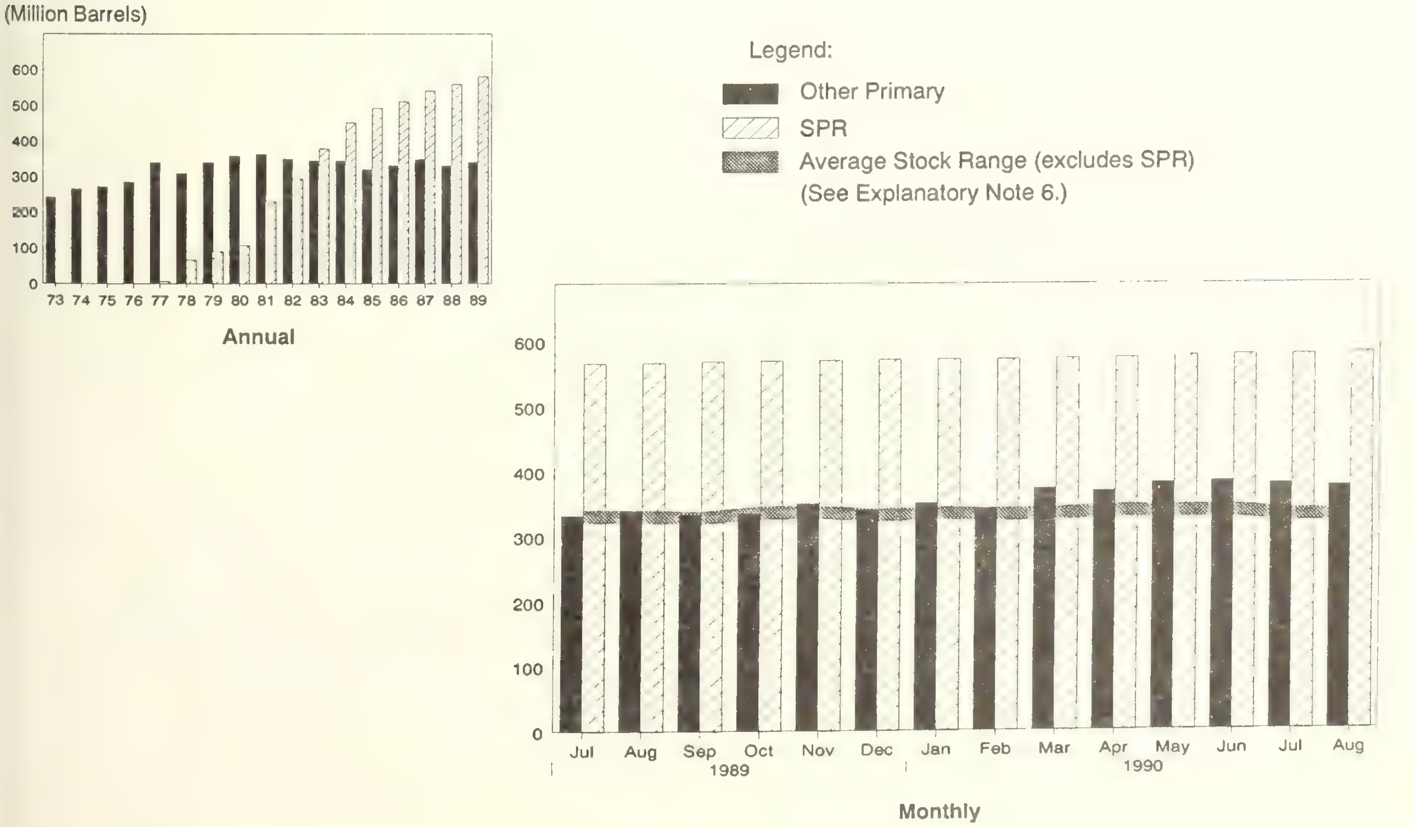

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports			Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Total Domestic	Alaskan	Total	SPR[d]	Other			
		Thousand Barrels per Day							
1973	Average	9,208	198	3,244	--	3,244	3	-19	13
1974	Average	8,774	193	3,477	--	3,477	-25	-15	13
1975	Average	8,375	191	4,105	--	4,105	17	-17	13
1976	Average	8,132	173	5,287	--	5,287	77	-18	15
1977	Average	8,245	464	6,615	21	6,594	-6	-14	16
1978	Average	8,707	1,229	6,356	162	6,195	-57	-14	16
1979	Average	8,552	1,401	6,519	67	6,452	-11	-13	16
1980	Average	8,597	1,617	5,263	44	5,219	34	-13	15
1981	Average	8,572	1,609	4,396	256	4,141	83	-58	5
1982	Average	8,649	1,696	3,488	165	3,323	71	-59	3
1983	Average	8,688	1,714	3,329	234	3,096	114	--	2
1984	Average	8,879	1,722	3,426	197	3,229	185	--	2
1985	Average	8,971	1,825	3,201	118	3,083	145	--	1
1986	Average	8,680	1,867	4,178	48	4,130	139	--	(s)
1987	Average	8,349	1,962	4,674	73	4,601	145	--	(s)
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**--**	**(s)**
1989	January	7,937	1,958	5,661	65	5,596	94	--	(s)
	February	7,788	1,962	5,305	84	5,221	-26	--	(s)
	March	7,575	1,686	5,035	75	4,960	426	--	(s)
	April	7,772	1,890	5,750	59	5,690	91	--	(s)
	May	7,816	1,973	5,729	77	5,652	280	--	(s)
	June	7,624	1,861	5,976	55	5,920	135	--	(s)
	July	7,444	1,725	6,214	75	6,139	426	--	(s)
	August	7,544	1,870	6,565	32	6,533	213	--	(s)
	September	7,548	1,875	6,028	59	5,969	121	--	1
	October	7,453	1,877	6,187	37	6,149	-125	--	0
	November	7,536	1,915	6,171	41	6,131	397	--	(s)
	December	7,337	1,904	5,463	12	5,452	343	--	(s)
	Average	**7,613**	**1,874**	**5,843**	**56**	**5,787**	**200**	**--**	**(s)**
1990	January	^{E}7,522	^{E}1,864	6,206	24	6,182	321	--	(s)
	February	^{E}7,465	^{E}1,834	5,858	12	5,847	-9	--	0
	March	^{E}7,394	^{E}1,819	6,125	44	6,081	544	--	0
	April	^{E}7,331	^{E}1,803	5,740	38	5,702	22	--	(s)
	May	^{E}7,259	^{E}1,766	6,438	89	6,349	335	--	0
	June	^{E}7,076	^{E}1,613	6,413	17	6,397	394	--	(s)
	July*	^{RE}7,144	^{RE}1,687	^{R}6,812	0	^{R}6,812	^{R}220	--	^{R}0
	August**	^{PE}7,150	^{PE}1,721	^{E}*6,717*	^{E}*95*	^{E}*6,622*	^{E}*338*	--	^{E}(s)
	8-Mo. Average	**^{PE}7,291**	**^{PE}1,763**	**^{E}6,296**	**^{E}40**	**^{E}6,256**	**^{E}275**	**--**	**^{E}(s)**
1989	**8-Mo. Average**	**7,686**	**1,864**	**5,785**	**65**	**5,719**	**208**	**--**	**(s)**
1988	**8-Mo. Average**	**8,224**	**2,019**	**5,026**	**47**	**4,979**	**189**	**--**	**(s)**

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[a] Includes lease condensate.

[b] Stocks are totals as of end of period.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Strategic Petroleum Reserve.

[e] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels. See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	--	-11	12,431	2	--	242	--	242
1974	**Average**	--	62	12,133	3	--	265	--	265
1975	**Average**	--	17	12,442	6	--	271	--	271
1976	**Average**	--	39	13,416	8	--	285	--	285
1977	**Average**	20	150	14,602	50	--	348	7	340
1978	**Average**	163	-84	14,739	158	--	376	67	309
1979	**Average**	67	81	14,648	235	--	430	91	339
1980	**Average**	45	52	13,481	287	--	[g]466	108	[g]358
1981	**Average**	336	[g]-46	12,470	228	--	594	230	363
1982	**Average**	174	-38	11,774	236	--	[g]644	294	[g]350
1983	**Average**	234	[g]-20	11,685	164	66	723	379	344
1984	**Average**	195	4	12,044	181	64	796	451	345
1985	**Average**	117	-67	12,002	204	60	814	493	321
1986	**Average**	50	28	12,716	154	49	843	512	331
1987	**Average**	80	49	12,854	151	34	890	541	349
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	26	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	**52**	**-51**	**13,246**	**155**	**40**	--	--	--
1989	January	65	115	13,330	137	47	895	562	334
	February	85	-38	12,765	208	48	897	564	333
	March	75	-202	12,963	156	45	893	566	327
	April	60	434	12,956	139	23	908	568	340
	May	77	194	13,405	131	19	916	570	346
	June	44	-478	13,905	243	20	903	572	331
	July	86	62	13,848	69	19	908	574	333
	August	32	251	13,861	162	17	916	575	341
	September	59	-203	13,791	32	18	912	577	335
	October	37	36	13,360	61	21	914	578	336
	November	41	500	13,420	120	25	930	579	351
	December	12	-313	13,165	247	33	921	580	341
	Average	**56**	**30**	**13,401**	**142**	**28**	--	--	--
1990	January	24	353	13,499	132	40	933	581	352
	February	12	-328	13,494	102	36	924	581	343
	March	44	986	12,876	133	24	956	582	374
	April	38	-132	13,051	112	24	953	583	370
	May	89	412	13,389	112	30	969	586	382
	June	16	59	13,690	88	29	971	587	384
	July*	R 0	R -152	R 14,208	R 89	R 31	R 966	587	R 380
	August**	E *95*	E *-322*	E *14,172*	E 100	E 30	E *966*	E *590*	E *376*
	8-Mo. Average	E **40**	E **116**	E **13,549**	E **109**	E **30**	--	--	--
1989	**8-Mo. Average**	**65**	**44**	**13,386**	**155**	**29**	--	--	--
1988	**8-Mo. Average**	**47**	**-63**	**13,254**	**162**	**39**	--	--	--

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Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	**Average**	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	**Average**	190	4	461	74	300	469	713	979	88	3,280	752
1975	**Average**	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	**Average**	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	**Average**	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	**Average**	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	**Average**	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	**Average**	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	**Average**	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	**Average**	170	26	552	92	248	35	514	412	97	2,146	854
1983	**Average**	240	0	337	30	338	48	302	422	144	1,862	632
1984	**Average**	323	1	325	117	343	10	216	548	166	2,049	819
1985	**Average**	187	4	168	45	314	27	293	605	187	1,830	472
1986	**Average**	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	**Average**	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	333	0	849	61	179	[f]1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	300	0	1,064	29	205	(s)	618	794	510	3,520	1,839
1989	January	335	0	1,449	59	218	0	782	941	429	4,212	2,219
	February	310	0	1,290	17	292	0	567	775	593	3,845	2,126
	March	272	0	1,108	64	167	0	702	909	471	3,693	1,805
	April	235	0	1,226	14	128	0	750	831	743	3,927	2,030
	May	272	0	1,155	61	264	0	789	853	630	4,025	1,977
	June	205	0	1,249	17	138	0	864	778	856	4,106	2,164
	July	263	0	1,182	0	113	0	1,094	794	992	4,437	2,308
	August	216	0	1,316	44	115	0	946	834	1,060	4,531	2,453
	September	256	0	1,109	20	113	0	867	914	957	4,236	2,195
	October	250	0	1,158	14	167	0	713	1,004	872	4,177	2,122
	November	323	0	1,342	0	231	0	770	924	762	4,353	2,257
	December	288	0	1,115	26	263	0	915	903	602	4,111	1,905
	Average	269	0	1,224	28	183	0	815	873	748	4,140	2,130
1990	January	418	0	1,212	37	137	0	830	1,138	1,047	4,819	2,592
	February	280	0	1,557	18	260	0	833	890	753	4,590	2,504
	March	301	0	1,157	17	138	0	1,054	878	824	4,368	2,115
	April	234	0	1,149	9	88	0	969	1,005	742	4,196	2,073
	May	247	0	1,225	73	77	0	1,008	1,087	836	4,554	2,337
	June	333	0	1,137	20	138	0	778	1,070	960	4,435	2,293
	July	308	0	1,369	13	143	0	830	999	1,291	4,954	2,853
	7-Mo. Average	303	0	1,255	27	139	0	902	1,011	925	4,561	2,396
1989	**7-Mo. Average**	270	0	1,236	33	187	0	795	842	673	4,038	2,089
1988	**7-Mo. Average**	299	0	1,001	41	195	(s)	629	808	426	3,399	1,703

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	594	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	936	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	32	999	747	38	97	315	22	242	1,392	3,882	7,402
1989	January	53	1,065	809	59	105	215	30	415	1,293	4,043	8,255
	February	24	1,007	756	44	92	221	24	369	1,649	4,186	8,032
	March	41	961	667	52	82	174	38	324	1,424	3,763	7,456
	April	55	877	1,002	14	117	148	24	407	1,507	4,151	8,078
	May	29	901	808	32	68	202	46	379	1,288	3,753	7,778
	June	28	921	688	34	143	181	32	363	1,481	3,871	7,977
	July	32	849	758	49	89	328	39	331	1,458	3,932	8,369
	August	19	911	806	43	101	370	21	239	1,519	4,029	8,560
	September	8	949	721	35	95	191	33	190	1,545	3,766	8,002
	October	44	857	837	38	71	309	32	180	1,756	4,124	8,301
	November	41	911	743	72	91	165	42	279	1,645	3,988	8,341
	December	29	973	610	29	81	78	24	377	1,266	3,468	7,579
	Average	34	931	767	42	94	215	32	321	1,484	3,921	8,061
1990	January	74	952	789	9	109	219	35	409	1,732	4,328	9,147
	February	74	919	722	27	89	74	32	323	1,456	3,716	8,306
	March	35	823	812	10	103	273	32	264	1,205	3,557	7,925
	April	51	908	466	29	114	274	33	283	1,404	3,562	7,758
	May	29	994	778	20	88	347	38	285	1,604	4,184	8,738
	June	36	927	912	21	118	249	27	299	1,666	4,255	8,690
	July	25	882	695	30	107	211	35	252	1,701	3,939	8,893
	7-Mo. Average	46	915	740	21	104	237	33	302	1,540	3,938	8,499
1989	7-Mo. Average	37	939	784	41	99	210	33	370	1,439	3,953	7,991
1988	7-Mo. Average	36	997	736	35	96	362	22	229	1,324	3,837	7,236

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

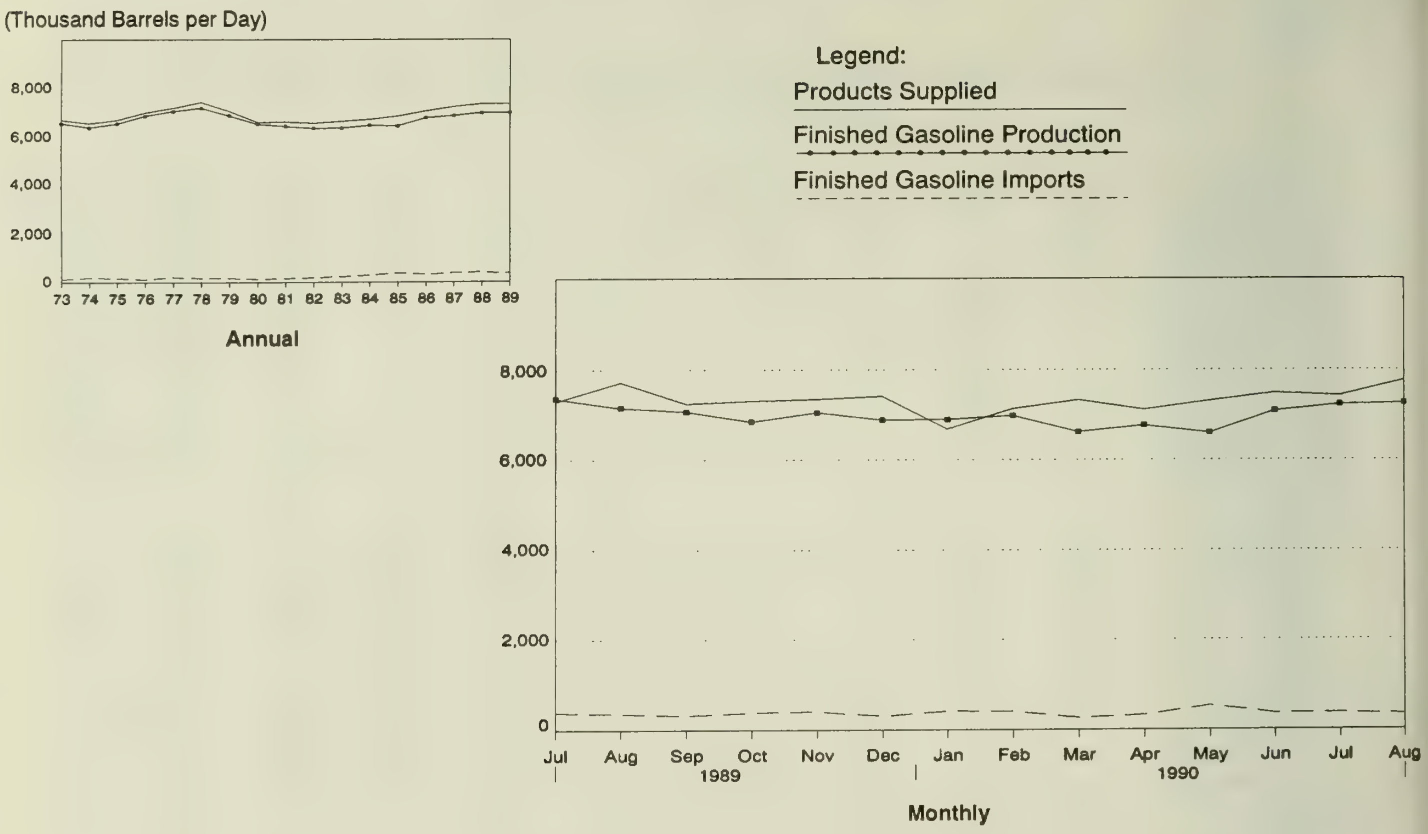
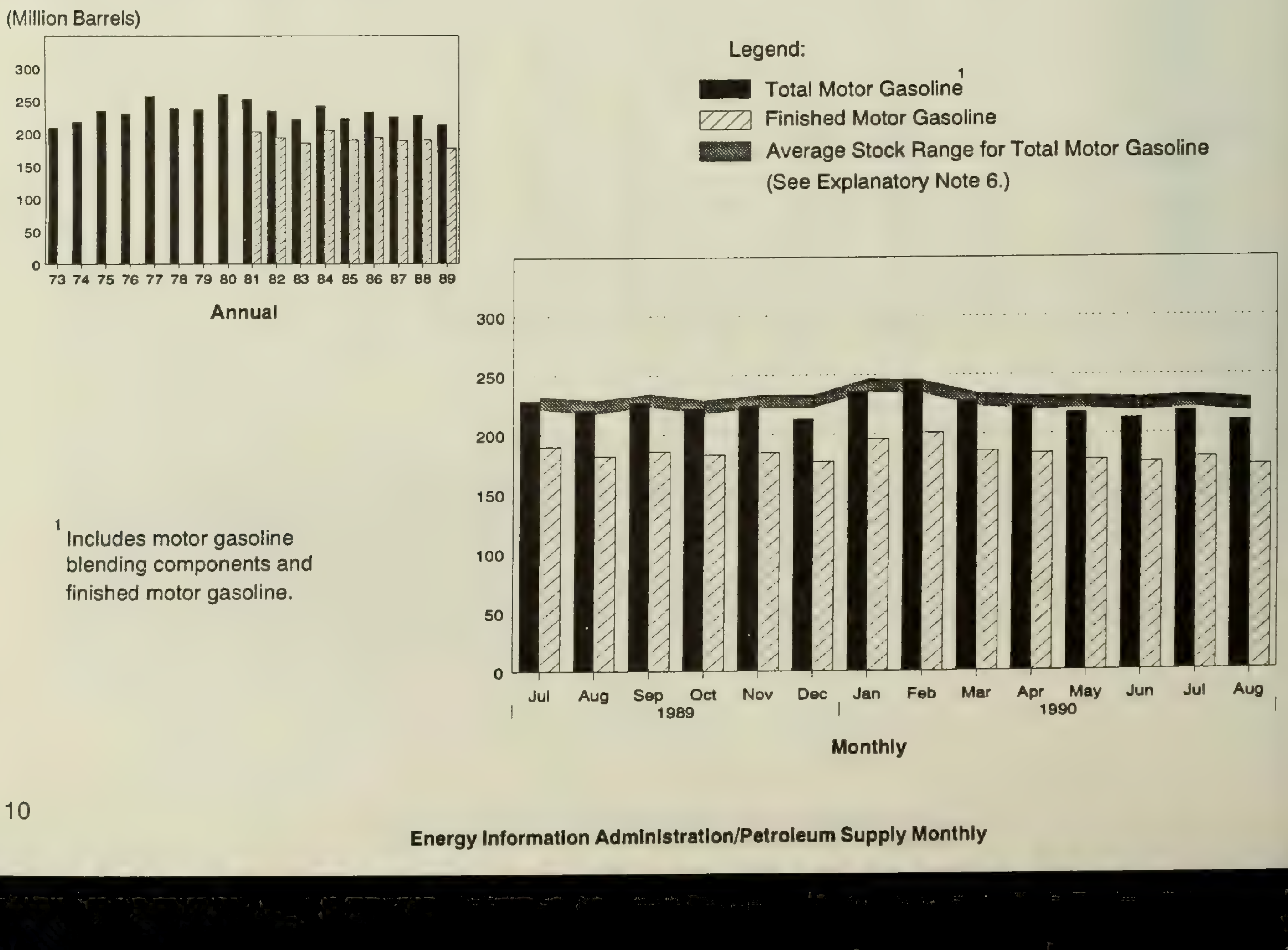


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Product Supplied			Total Motor Gasoline[e]	Finished Motor Gasoline
						Total[d]	Unleaded	Unleaded		
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	6,535	134	-9	4	6,674	--	--	209	--
1974	**Average**	6,360	204	24	2	6,537	--	--	[f]218	--
1975	**Average**	6,520	184	[f]28	2	6,675	--	--	235	--
1976	**Average**	6,841	131	-10	3	6,978	--	--	231	--
1977	**Average**	7,033	217	72	2	7,177	1,976	27.5	258	--
1978	**Average**	7,169	190	-54	1	7,412	2,521	34.0	238	--
1979	**Average**	6,852	181	-2	(s)	7,034	2,798	39.8	237	--
1980	**Average**	6,506	140	66	1	6,579	3,067	46.6	[f]261	--
1981	**Average**[g]	6,405	157	[f]-28	2	6,588	3,264	49.5	253	--
1982	**Average**	6,338	197	-25	20	6,539	3,409	52.1	[f]235	--
1983	**Average**	6,340	247	[f]-45	10	6,622	3,647	55.1	222	186
1984	**Average**	6,453	299	54	6	6,693	3,987	59.6	243	205
1985	**Average**	6,419	381	-41	10	6,831	4,406	64.5	223	190
1986	**Average**	6,752	328	11	33	7,034	4,854	69.0	233	194
1987	**Average**	6,841	384	-15	35	7,206	5,470	75.9	226	189
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,983	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,956**	**405**	**3**	**22**	**7,336**	**5,995**	**81.7**	--	--
1989	January	6,937	353	512	33	6,745	5,754	85.3	249	206
	February	6,650	423	-70	24	7,119	6,141	86.3	248	204
	March	6,612	381	-471	43	7,421	6,380	86.0	230	189
	April	6,811	370	-22	46	7,157	6,248	87.3	227	188
	May	6,894	355	-163	31	7,381	6,454	87.5	223	183
	June	7,275	386	-180	60	7,780	6,864	88.2	216	178
	July	7,360	383	390	57	7,296	6,509	89.2	229	190
	August	7,155	360	-260	58	7,717	6,934	89.8	221	182
	September	7,069	320	118	31	7,240	6,443	89.0	227	186
	October	6,845	389	-97	29	7,302	6,642	91.0	222	183
	November	7,046	406	81	18	7,353	6,756	91.9	224	185
	December	6,884	306	-257	37	7,410	6,927	93.5	213	177
	Average	**6,963**	**369**	**-35**	**39**	**7,328**	**6,507**	**88.8**	--	--
1990	January	6,889	417	599	31	6,675	6,272	94.0	236	196
	February	6,978	407	204	53	7,129	6,657	93.4	246	201
	March	6,612	265	-493	45	7,325	6,881	93.9	228	186
	April	6,764	327	-52	28	7,116	6,696	94.1	224	184
	May	6,599	535	-196	25	7,304	6,884	94.2	218	178
	June	7,084	361	-86	52	7,478	7,059	94.4	213	176
	July*	R 7,230	R 372	R 146	R 41	R 7,415	R 7,012	R 94.6	R 219	R 180
	August**	E *7,255*	E *334*	E *-206*	E 38	E *7,757*	E *7,342*	E *94.6*	E *211*	E *173*
	8-Mo. Average	E **6,926**	E **377**	E **-13**	E **39**	E **7,277**	E **6,852**	E **94.2**	--	--
1989	**8-Mo. Average**	**6,965**	**376**	**-32**	**44**	**7,328**	**6,413**	**87.5**	--	--
1988	**8-Mo. Average**	**6,912**	**418**	**-22**	**22**	**7,330**	**5,933**	**80.9**	--	--

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[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

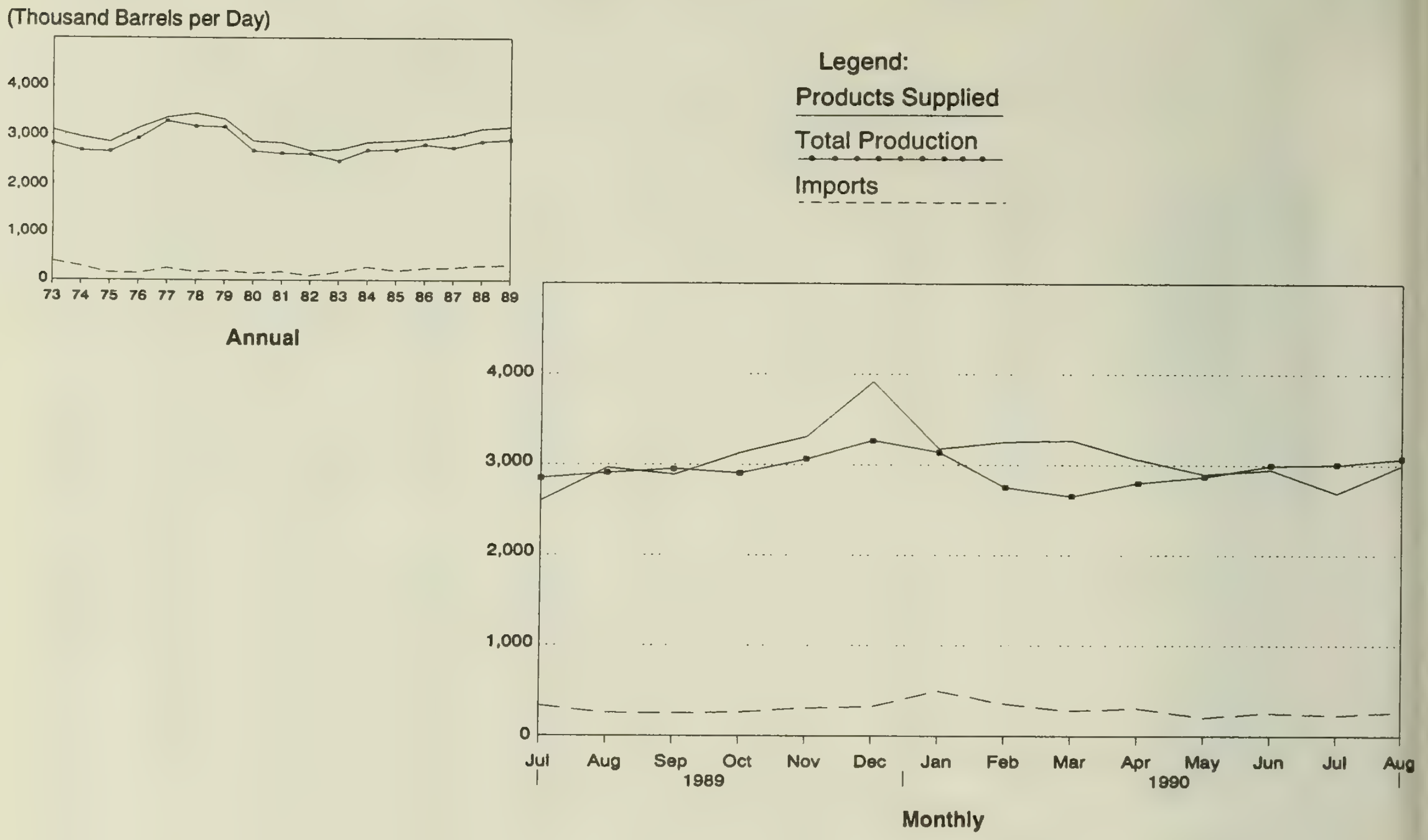

Figure S8. Distillate Fuel Oil Ending Stocks

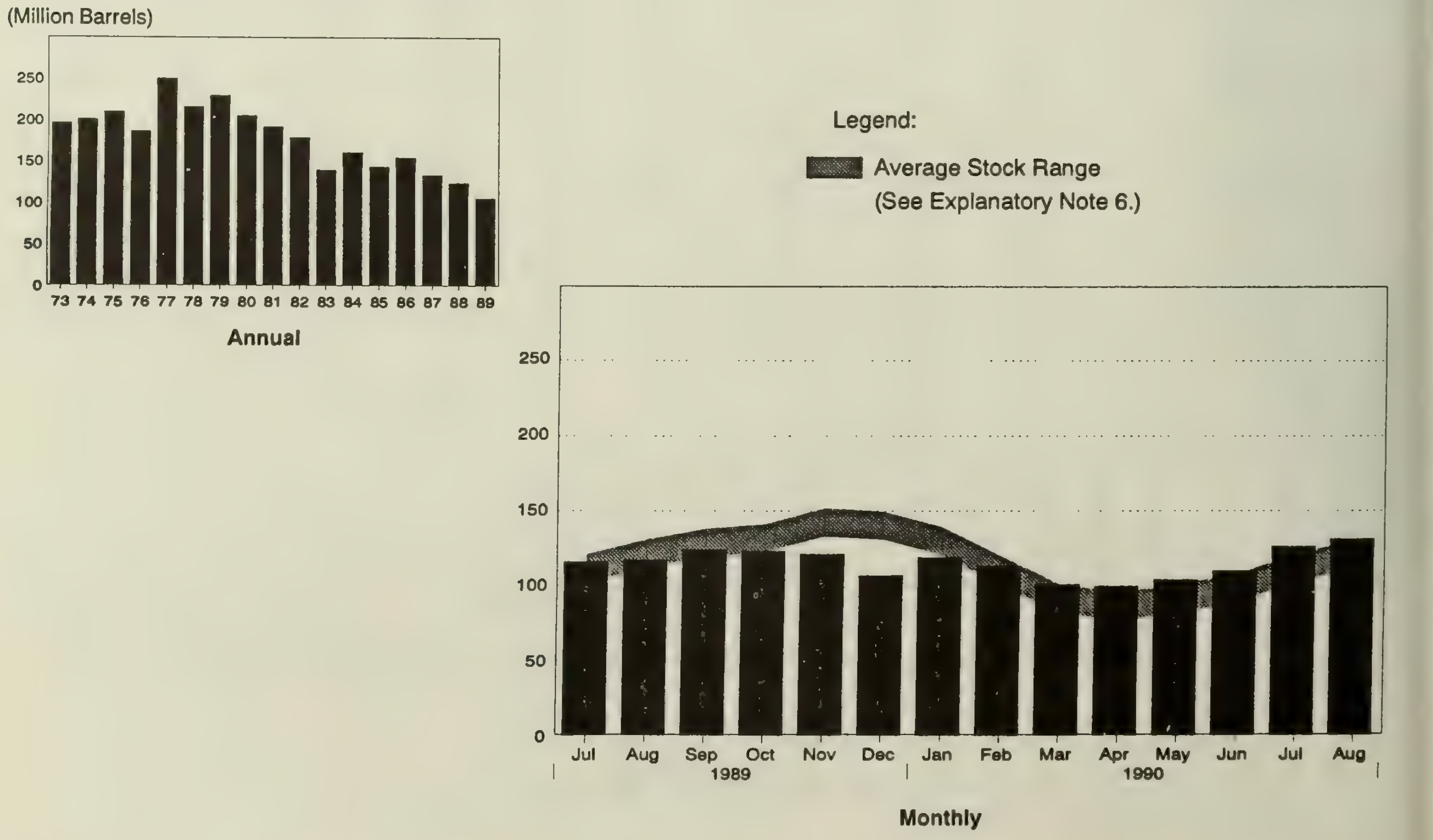

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**
1974	**Average**	**2,669**	**289**	**2**	**9**	**2**	**2,948**	[d] **200**
1975	**Average**	**2,654**	**155**	**2**	[d] **-40**	**1**	**2,851**	**209**
1976	**Average**	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**
1977	**Average**	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**
1978	**Average**	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**
1979	**Average**	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**
1980	**Average**	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	[d] **205**
1981	**Average**[e]	**2,613**	**173**	**10**	[d] **-38**	**5**	**2,829**	**192**
1982	**Average**	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	[d] **179**
1983	**Average**	**2,456**	**174**	–	[d] **-124**	**64**	**2,690**	**140**
1984	**Average**	**2,681**	**272**	–	**57**	**51**	**2,845**	**161**
1985	**Average**	**2,687**	**200**	–	**-48**	**67**	**2,868**	**144**
1986	**Average**	**2,798**	**247**	–	**31**	**100**	**2,914**	**155**
1987	**Average**	**2,731**	**255**	–	**-56**	**66**	**2,976**	**134**
1988	January	3,010	424	--	-206	82	3,558	128
	February	2,667	383	--	-614	107	3,557	110
	March	2,706	247	--	-660	74	3,539	90
	April	2,867	210	--	171	42	2,864	95
	May	2,936	253	--	320	74	2,795	105
	June	2,893	222	--	185	76	2,854	110
	July	2,784	222	--	308	58	2,640	120
	August	2,848	279	--	185	70	2,873	126
	September	2,778	307	--	192	72	2,821	131
	October	2,827	336	--	-103	48	3,218	128
	November	2,909	327	--	19	34	3,183	129
	December	3,068	409	--	-171	87	3,560	124
	Average	**2,859**	**302**	–	**-30**	**69**	**3,122**	--
1989	January	2,974	346	--	-93	110	3,303	121
	February	2,797	331	--	-463	164	3,427	108
	March	2,713	439	--	-352	76	3,428	97
	April	2,789	301	--	60	56	2,975	99
	May	2,750	290	--	35	51	2,954	100
	June	2,809	233	--	(s)	39	3,002	100
	July	2,848	334	--	498	89	2,596	115
	August	2,907	254	--	41	154	2,966	116
	September	2,952	249	--	231	81	2,889	123
	October	2,906	261	--	-50	90	3,127	122
	November	3,063	307	--	-64	123	3,311	120
	December	3,266	324	--	-454	130	3,914	106
	Average	**2,899**	**306**	–	**-49**	**97**	**3,157**	--
1990	January	3,136	501	--	398	62	3,177	118
	February	2,753	357	--	-204	65	3,250	112
	March	2,655	280	--	-405	75	3,265	100
	April	2,802	308	--	-8	59	3,059	99
	May	2,873	207	--	109	75	2,897	103
	June	2,995	257	--	219	84	2,949	109
	July*	R 3,006	R 229	--	R 512	R 30	R 2,693	R 125
	August**	E *3,074*	E *269*	--	E *264*	E *79*	E *3,000*	E *130*
	8-Mo. Average	E **2,914**	E **301**	–	E **114**	E **66**	E **3,034**	--
1989	**8-Mo. Average**	**2,824**	**316**	–	**-30**	**92**	**3,078**	--
1988	**8-Mo. Average**	**2,840**	**280**	–	**-36**	**73**	**3,083**	–

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

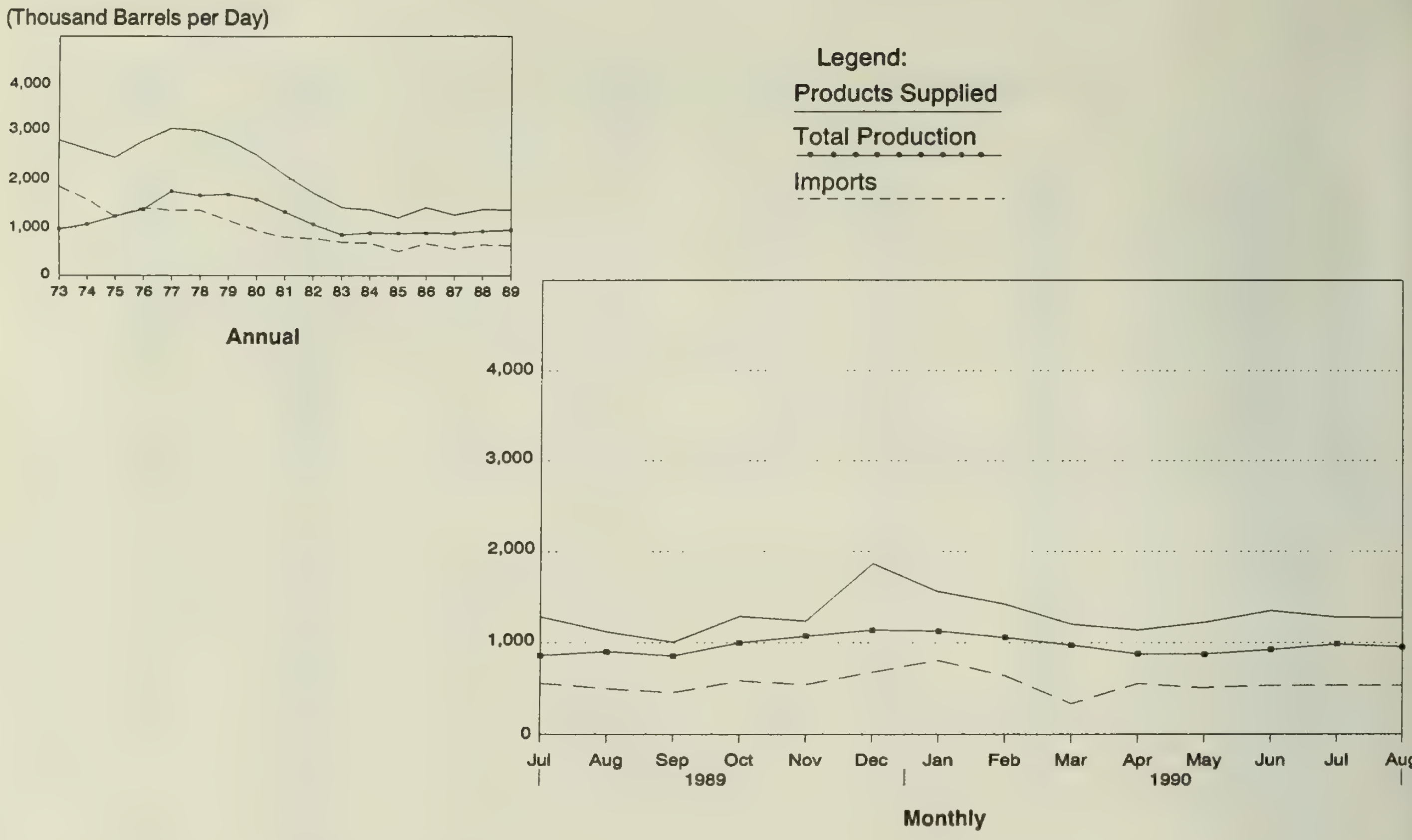

Figure S10. Residual Fuel Oil Ending Stocks

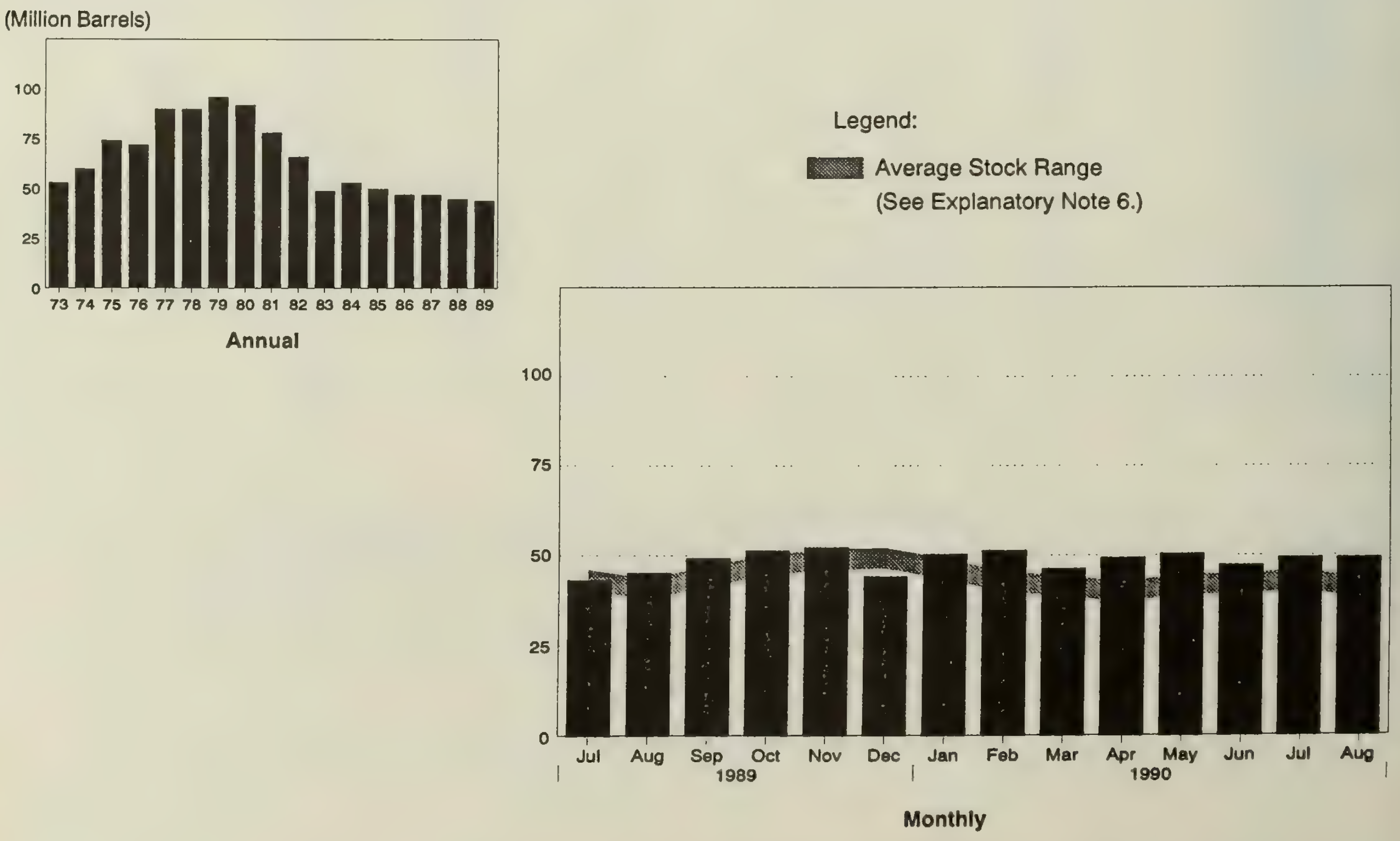

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	Average	971	1,853	17	-5	23	2,822	53
1974	Average	1,070	1,587	13	17	14	2,639	[d] 60
1975	Average	1,235	1,223	15	[d] -2	15	2,462	74
1976	Average	1,377	1,413	17	-5	12	2,801	72
1977	Average	1,754	1,359	13	48	6	3,071	90
1978	Average	1,667	1,355	13	1	13	3,023	90
1979	Average	1,687	1,151	12	15	9	2,826	96
1980	Average	1,580	939	12	-10	33	2,508	[d] 92
1981	Average[e]	1,321	800	48	[d] -37	118	2,088	78
1982	Average	1,070	776	48	-32	209	1,716	[d] 66
1983	Average	852	699	--	[d] -55	185	1,421	49
1984	Average	891	681	--	12	190	1,369	53
1985	Average	882	510	--	-7	197	1,202	50
1986	Average	889	669	--	-8	147	1,418	47
1987	Average	885	565	--	(s)	186	1,264	47
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	926	644	--	-8	200	1,378	--
1989	January	949	909	--	84	151	1,623	47
	February	930	877	--	-58	146	1,719	46
	March	937	706	--	-128	220	1,551	42
	April	904	681	--	-52	236	1,401	40
	May	934	538	--	77	276	1,119	42
	June	953	533	--	54	208	1,223	44
	July	862	556	--	-44	176	1,286	43
	August	903	501	--	58	225	1,121	45
	September	856	454	--	162	137	1,010	49
	October	1,001	583	--	50	243	1,292	51
	November	1,075	543	--	48	330	1,240	52
	December	1,140	680	--	-275	226	1,870	44
	Average	954	629	--	-2	215	1,370	--
1990	January	1,129	809	--	191	186	1,561	50
	February	1,060	640	--	63	214	1,424	51
	March	974	334	--	-171	277	1,202	46
	April	880	555	--	93	200	1,142	49
	May	877	507	--	21	141	1,222	50
	June	926	536	--	-96	207	1,350	47
	July*	R 987	R 535	--	R 72	R 171	R 1,279	R 49
	August**	E *954*	E *534*	--	E *38*	E 173	E *1,277*	E *49*
	8-Mo. Average	E 973	E 555	--	E 26	E 196	E 1,306	--
1989	8-Mo. Average	921	661	--	(s)	205	1,377	--
1988	8-Mo. Average	927	584	--	-39	212	1,337	--

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

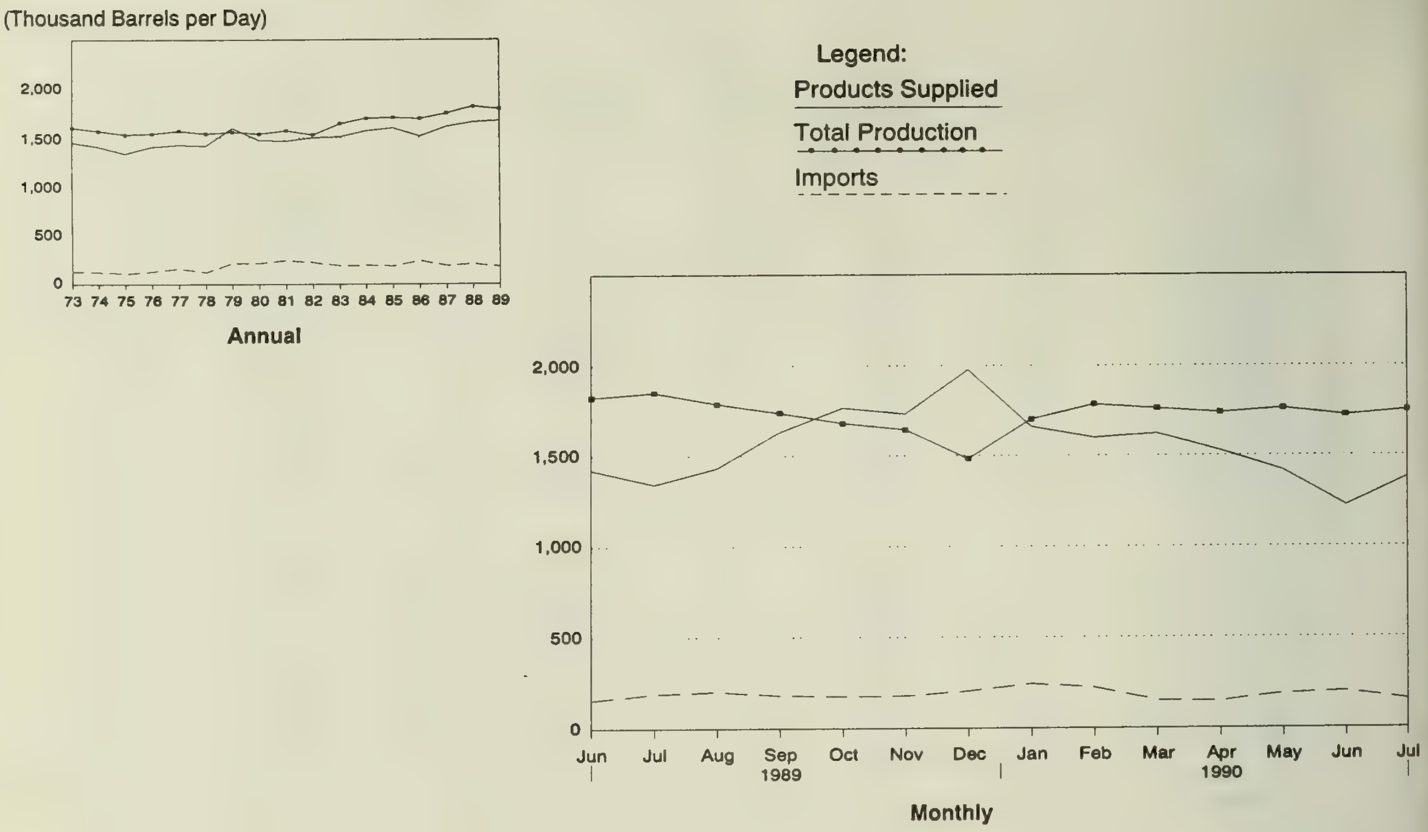

Figure S12. Liquefied Petroleum Gases Ending Stocks

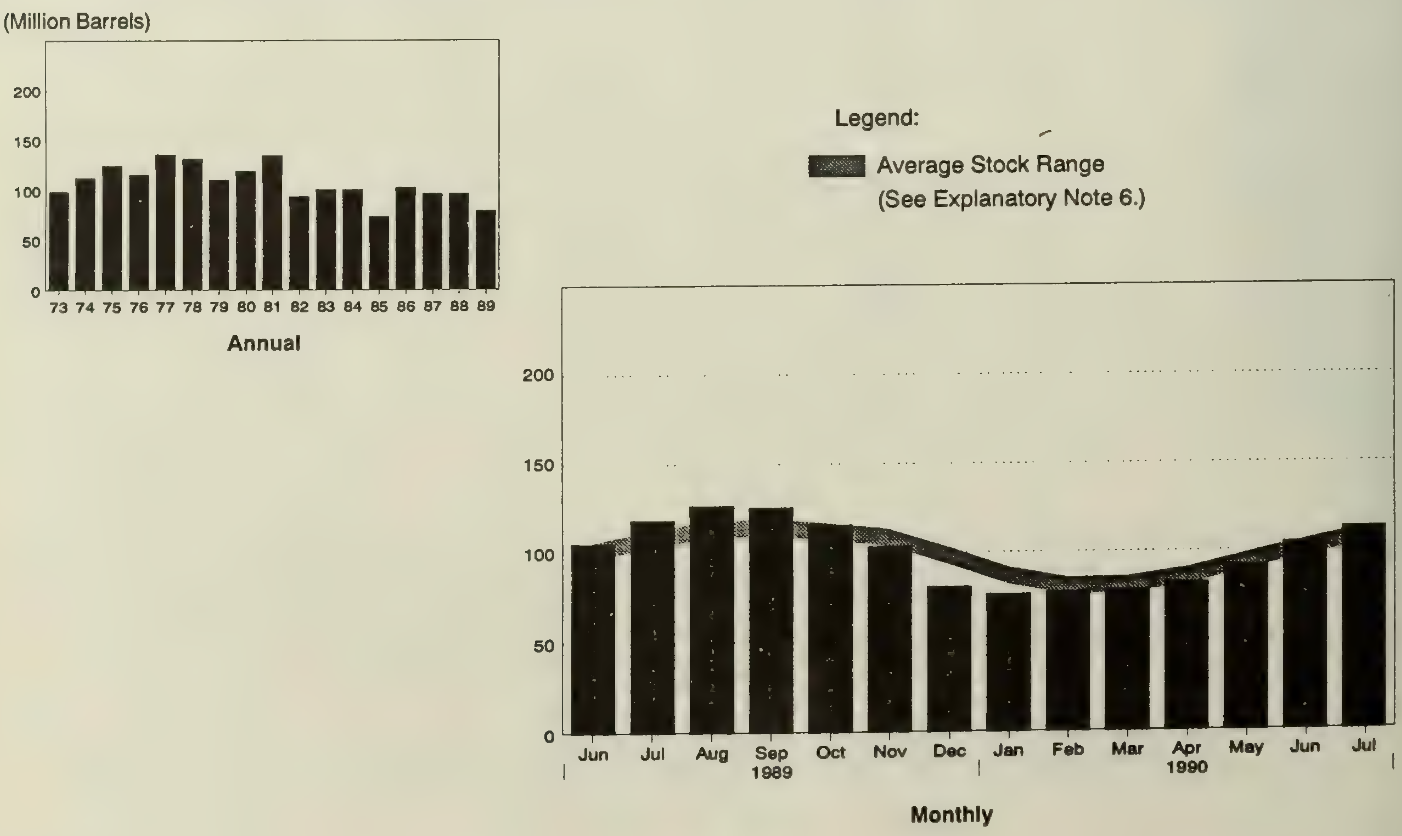

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	1,600	132	35	220	27	1,449	99
1974	**Average**	1,565	123	38	220	25	1,406	[d] 113
1975	**Average**	1,527	112	[d] 35	246	26	1,333	125
1976	**Average**	1,535	130	-24	260	25	1,404	116
1977	**Average**	1,566	161	55	233	18	1,422	136
1978	**Average**	1,537	123	-12	239	20	1,413	132
1979	**Average**	1,556	217	-70	236	15	1,592	111
1980	**Average**	1,535	216	27	233	21	1,469	[d] 120
1981	**Average**	1,571	244	[d] 18	289	42	1,466	135
1982	**Average**	1,528	226	-111	300	65	1,499	[d] 94
1983	**Average**	1,642	190	[d] -4	253	73	1,509	[d] 101
1984	**Average**	1,697	195	[d] -19	291	48	1,572	101
1985	**Average**	1,704	187	-75	304	62	1,599	74
1986	**Average**	1,695	242	80	302	42	1,512	103
1987	**Average**	1,748	190	-15	304	38	1,612	97
1988	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	1,817	209	1	321	49	1,656	–
1989	January	1,885	239	-335	422	19	2,018	87
	February	1,798	260	-333	328	31	2,032	78
	March	1,909	150	-85	274	43	1,827	75
	April	1,950	121	294	242	27	1,507	84
	May	1,943	110	428	226	43	1,357	97
	June	1,824	155	269	254	35	1,422	105
	July	1,850	192	407	247	45	1,343	118
	August	1,787	202	272	245	40	1,433	126
	September	1,737	182	-46	303	31	1,631	125
	October	1,679	176	-313	371	31	1,766	115
	November	1,643	179	-389	446	33	1,732	103
	December	1,483	205	-749	424	37	1,975	80
	Average	1,791	181	-47	315	35	1,668	–
1990	January	1,700	245	-174	416	44	1,660	76
	February	1,784	223	20	346	42	1,599	77
	March	1,760	152	42	205	44	1,620	78
	April	1,738	148	136	200	25	1,525	82
	May	1,760	189	279	216	36	1,417	91
	June	1,722	201	451	220	28	1,223	104
	July*	1,750	156	259	230	36	1,379	112
	7-Mo. Average	1,744	187	145	261	37	1,489	–
1989	**7-Mo. Average**	1,881	175	96	284	35	1,640	–
1988	**7-Mo. Average**	1,800	197	68	300	40	1,590	–

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.
* See Explanatory Note 5.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	3,693	502	9	750	186	3,270	208
1974	**Average**	3,558	432	28	665	174	3,123	[d]218
1975	**Average**	3,418	277	[d]-4	537	160	3,002	219
1976	**Average**	3,643	206	5	524	175	3,145	220
1977	**Average**	3,912	205	27	514	165	3,410	230
1978	**Average**	4,046	166	-14	492	167	3,568	225
1979	**Average**	4,153	195	37	352	209	3,749	238
1980	**Average**	3,956	210	23	311	198	3,634	[d]247
1981	**Average**	3,739	226	[d]-46	723	199	3,088	282
1982	**Average**	3,453	334	-80	787	211	2,869	[d]253
1983	**Average**	3,460	411	[d]-6	712	242	2,923	[d]256
1984	**Average**	3,632	565	[d]-23	791	245	3,183	240
1985	**Average**	3,721	588	17	886	240	3,166	246
1986	**Average**	3,997	561	10	888	308	3,353	250
1987	**Average**	4,080	610	-1	829	289	3,572	250
1988	January	3,942	706	136	812	354	3,347	254
	February	3,905	680	31	753	318	3,484	255
	March	4,147	666	282	687	328	3,515	264
	April	4,010	794	87	851	288	3,577	266
	May	4,071	843	335	501	274	3,803	277
	June	4,265	787	-43	777	379	3,939	276
	July	4,315	781	21	831	329	3,915	276
	August	4,413	701	-199	796	302	4,215	270
	September	4,245	651	-159	850	323	3,882	265
	October	4,163	771	-40	762	268	3,944	264
	November	4,068	823	43	818	303	3,728	265
	December	4,155	613	-429	1,153	392	3,653	252
	Average	4,143	735	6	799	321	3,751	--
1989	January	4,198	746	396	706	311	3,532	264
	February	3,957	837	191	726	302	3,574	270
	March	4,067	745	112	660	321	3,718	273
	April	3,953	854	133	808	306	3,561	277
	May	4,131	755	221	688	260	3,718	284
	June	4,375	695	-206	838	389	4,049	278
	July	4,454	690	-69	955	344	3,913	276
	August	4,436	677	-215	893	328	4,107	269
	September	4,428	770	112	737	343	4,005	272
	October	4,191	705	32	730	337	3,796	273
	November	4,122	736	-43	900	351	3,650	272
	December	3,763	600	-601	918	391	3,655	253
	Average	4,174	733	4	797	332	3,774	--
1990	January	4,014	970	176	699	255	3,854	259
	February	4,255	819	495	645	347	3,587	273
	March	4,115	769	144	787	306	3,646	278
	April	4,125	679	-195	861	337	3,800	272
	May	4,235	861	292	531	300	3,973	281
	June	4,267	922	-141	904	345	4,082	277
	July*	4,581	789	30	954	327	4,059	278
	7-Mo. Average	4,227	830	112	770	316	3,860	--
1989	**7-Mo. Average**	4,165	759	112	769	319	3,725	--
1988	**7-Mo. Average**	4,095	751	123	744	324	3,655	--

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1989: EIA, *Petroleum Supply Annual.*

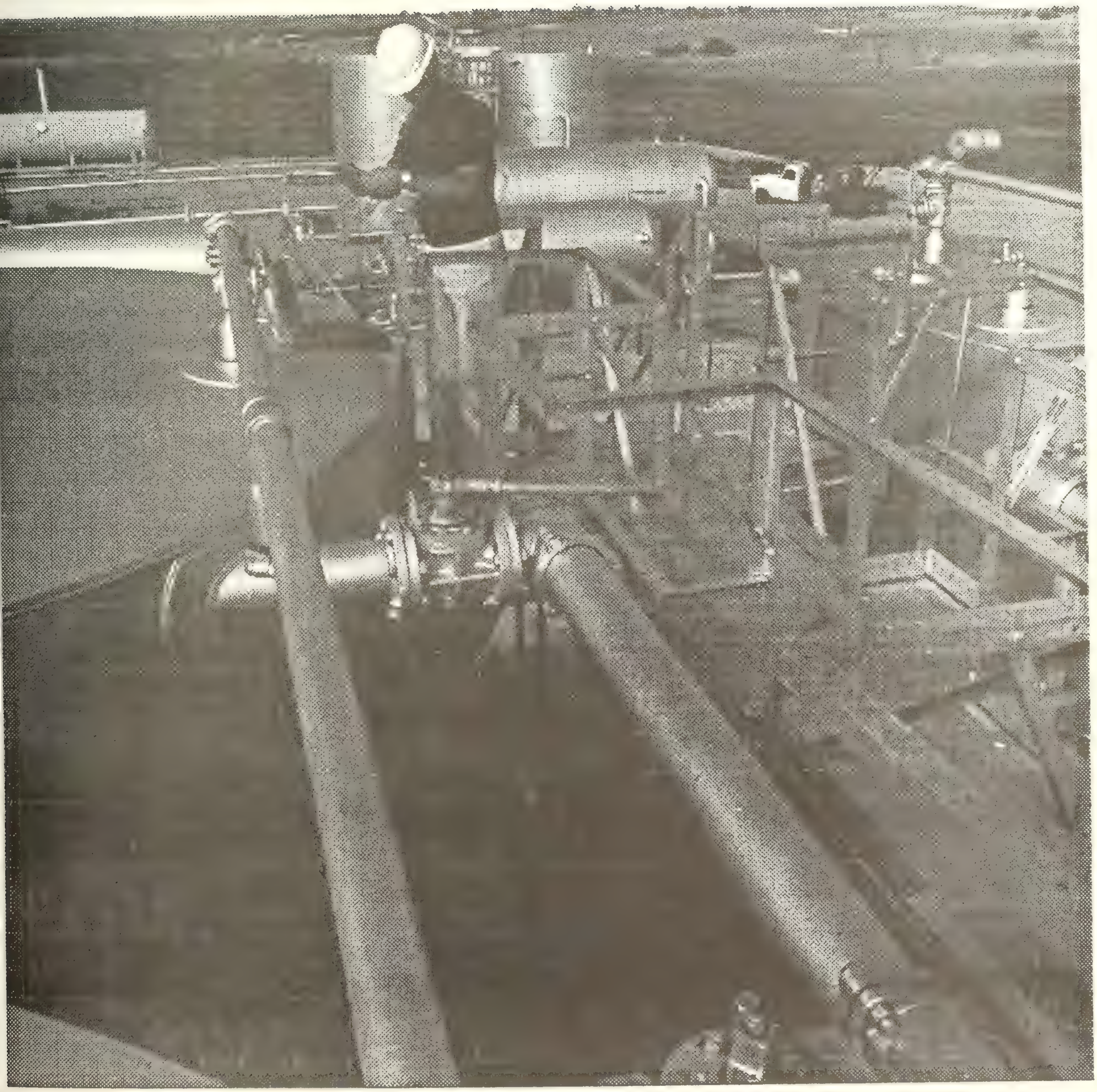
4. January 1990 through July 1990: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 5.)

5. August 1990: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)

6. January 1990 through August 1990: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 6).

Detailed Statistics



At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, July 1990

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
(1)	Alaska	^{E}52,291	^{E}1,687	^{E}375,006	^{E}1,769
(2)	Lower 48 States	^{E}169,167	^{E}5,457	^{E}1,175,119	^{E}5,543
(3)	**Total U.S.**	^{E}**221,458**	^{E}**7,144**	^{E}**1,550,125**	^{E}**7,312**
	Net Imports				
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	211,173	6,812	1,314,818	6,202
(5)	SPR Imports	0	0	6,826	32
(6)	Exports	2,767	89	23,315	110
(7)	**Imports (Net Including SPR)**	**208,406**	**6,723**	**1,298,329**	**6,124**
	Other Sources				
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	0	0	-6,821	-32
(9)	Other Stock Change (Withdrawal (+), Addition (-))	4,719	152	-38,209	-180
(10)	Product Supplied and Losses	-966	-31	-6,494	-31
(11)	Unaccounted for[a]	6,823	220	56,265	265
(12)	**Total Other Sources**	**10,576**	**341**	**4,741**	**22**
(13)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**440,440**	**14,208**	**2,853,195**	**13,458**
	Natural Gas Liquids (NGL)				
(14)	Field Production	45,872	1,480	318,335	1,502
(15)	Net Imports[b]	59	2	1,378	7
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	-974	-31	-261	-1
(17)	**Total NGL Supply**	**44,957**	**1,450**	**319,452**	**1,507**
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Change (Withdrawal (+), Addition (-))	3,445	111	-9,413	-44
(19)	Imports	13,096	422	98,581	465
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	2,174	70	15,227	72
(21)	Refinery Processing Gain[a]	18,968	612	138,397	653
(22)	Crude Oil Product Supplied	966	31	6,481	31
(23)	**Total Other Liquids** (23) = (18) through (22)	**38,649**	**1,247**	**249,273**	**1,176**
(24)	**Total Production of Products** (24) = (13) + (17) + (23)	**524,046**	**16,905**	**3,421,920**	**16,141**
	Net Imports of Refined Products				
(25)	Imports (Gross)	51,301	1,655	379,794	1,791
(26)	Exports	18,761	605	138,550	654
(27)	**Imports (Net)**	**32,540**	**1,050**	**241,244**	**1,138**
(28)	**Total New Supply of Products** (28) = (24) + (27)	**556,586**	**17,954**	**3,663,164**	**17,279**
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	-34,046	-1,098	-72,882	-344
(30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	**522,540**	**16,856**	**3,590,282**	**16,935**
(31)	Finished Motor Gasoline	229,855	7,415	1,527,723	7,206
(32)	Distillate Fuel Oil	83,481	2,693	644,234	3,039
(33)	Residual Fuel Oil	39,641	1,279	277,837	1,311
(34)	Liquefied Petroleum Gases	42,758	1,379	315,606	1,489
(35)	Other[c]	125,839	4,059	818,401	3,860
(36)	Crude Oil	966	31	6,481	31
(37)	**Total Products Supplied** (37) = (31) through (36)	**522,540**	**16,856**	**3,590,282**	**16,935**
	Ending Stocks, All Oils				
(38)	Crude Oil (Excluding SPR)	379,518	--	379,518	--
(39)	Strategic Petroleum Reserve	586,678	--	586,678	--
(40)	Finished Motor Gasoline	180,358	--	180,358	--
(41)	Distillate Fuel Oil	125,250	--	125,250	--
(42)	Residual Fuel Oil	49,000	--	49,000	--
(43)	Liquefied Petroleum Gases	112,289	--	112,289	--
(44)	Other[c]	277,544	--	277,544	--
(45)	**Total Stocks** (45) = (38) through (44)	**1,710,637**	--	**1,710,637**	--

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[a] Unaccounted for crude oil and refinery processing gain are balancing items. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 221,458	--	211,173	6,823	-4,719	0	440,440	2,767	966	966,196
Natural Gas Liquids and LRGs	45,872	17,993	4,921	--	9,014	--	12,905	1,171	45,696	121,020
Pentanes Plus	9,615	--	99	--	974	--	5,762	40	2,938	8,731
Liquefied Petroleum Gases	36,257	17,993	4,822	--	8,040	--	7,143	1,131	42,758	112,289
Ethane/Ethylene	13,414	626	0	--	-1,665	--	0	2	15,703	20,713
Propane/Propylene	13,910	12,711	2,788	--	4,940	--	251	714	23,504	48,930
Normal Butane/Butylene	3,911	4,174	1,391	--	4,772	--	1,983	416	2,305	32,665
Isobutane	5,022	482	643	--	-7	--	4,909	0	1,245	9,981
Other Liquids	2,174	--	13,096	--	-3,445	--	23,803	0	-5,088	152,906
Other Hydrocarbons/Alcohol	2,174	--	0	--	238	--	1,936	0	0	1,342
Unfinished Oils	--	--	10,934	--	-5,086	--	23,137	0	-7,117	112,429
Motor Gasoline Blend. Comp.	--	--	2,162	--	1,439	--	-1,305	0	2,028	38,993
Aviation Gasoline Blend. Comp.	--	--	0	--	-36	--	35	0	1	142
Finished Petroleum Products	--	478,123	46,479	--	26,006	--	--	17,629	480,967	470,515
Finished Motor Gasoline	--	224,119	11,538	--	4,518	--	--	1,284	229,855	180,358
Leaded	--	12,584	16	--	29	--	--	86	12,485	10,589
Unleaded	--	211,535	11,522	--	4,489	--	--	1,198	217,370	169,769
Finished Aviation Gasoline	--	793	8	--	-161	--	--	0	962	1,672
Jet Fuel	--	43,413	2,632	--	3,636	--	--	318	42,091	50,891
Naphtha-Type	--	3,910	53	--	-635	--	--	16	4,582	6,334
Kerosene-Type	--	39,503	2,579	--	4,271	--	--	302	37,509	44,557
Kerosene	--	2,346	23	--	886	--	--	10	1,473	5,957
Distillate Fuel Oil	--	93,193	7,091	--	15,858	--	--	945	83,481	125,250
Residual Fuel Oil	--	30,588	16,596	--	2,234	--	--	5,309	39,641	49,000
Naphtha for Petro. Feed. Use	--	4,700	2,071	--	-36	--	--	61	6,746	1,813
Other Oils for Petro. Feed. Use	--	9,465	4,648	--	-191	--	--	468	13,836	2,398
Special Naphthas	--	1,814	116	--	257	--	--	331	1,342	2,954
Lubricants	--	5,422	366	--	701	--	--	445	4,642	13,052
Waxes	--	644	32	--	29	--	--	56	591	930
Petroleum Coke	--	17,165	158	--	-1,076	--	--	8,209	10,190	7,527
Asphalt and Road Oil	--	19,419	1,137	--	-679	--	--	105	21,130	26,298
Still Gas	--	23,023	0	--	0	--	--	0	23,023	0
Miscellaneous Products	--	2,019	63	--	30	--	--	89	1,963	2,415
Total	269,504	496,116	275,669	6,823	26,856	0	477,148	21,568	522,540	1,710,637

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 1,550,125	–	1,321,644	56,265	45,030	13	2,853,195	23,315	6,481	966,196
Natural Gas Liquids and LRGs	318,335	115,379	41,455	--	31,044	--	92,615	8,116	343,394	121,020
Pentanes Plus	63,896	--	1,736	--	261	--	37,225	358	27,788	8,731
Liquefied Petroleum Gases	254,439	115,379	39,719	--	30,783	--	55,390	7,758	315,606	112,289
Ethane/Ethylene	93,125	2,851	886	--	-2,630	--	58	14	99,420	20,713
Propane/Propylene	98,973	84,813	26,497	--	15,803	--	1,647	5,399	187,434	48,930
Normal Butane/Butylene	29,658	25,148	9,316	--	15,700	--	21,736	2,344	24,342	32,665
Isobutane	32,683	2,567	3,020	--	1,910	--	31,949	0	4,411	9,981
Other Liquids	15,227	–	98,581	--	9,413	--	125,909	0	-21,514	152,906
Other Hydrocarbons/Alcohol	15,227	--	0	--	660	--	14,567	0	0	1,342
Unfinished Oils	--	--	82,603	--	6,236	--	112,744	0	-36,377	112,429
Motor Gasoline Blend. Comp.	--	--	15,978	--	2,533	--	-1,371	0	14,816	38,993
Aviation Gasoline Blend. Comp.	--	--	0	--	-16	--	-31	0	47	142
Finished Petroleum Products	–	3,094,737	340,075	--	42,099	--	–	130,792	3,261,921	470,515
Finished Motor Gasoline	--	1,458,031	81,302	--	3,279	--	--	8,331	1,527,723	180,358
Leaded	--	84,073	176	--	-7,092	--	--	1,141	90,200	10,589
Unleaded	--	1,373,958	81,126	--	10,371	--	--	7,191	1,437,522	169,769
Finished Aviation Gasoline	--	4,962	33	--	-399	--	--	0	5,394	1,672
Jet Fuel	--	298,635	25,297	--	9,989	--	--	4,694	309,249	50,891
Naphtha-Type	--	38,275	351	--	-97	--	--	1,040	37,683	6,334
Kerosene-Type	--	260,360	24,946	--	10,086	--	--	3,655	271,565	44,557
Kerosene	--	15,656	1,389	--	818	--	--	144	16,083	5,957
Distillate Fuel Oil	--	612,778	64,694	--	19,632	--	--	13,606	644,234	125,250
Residual Fuel Oil	--	206,859	118,380	--	5,191	--	--	42,211	277,837	49,000
Naphtha for Petro. Feed. Use	--	28,020	17,560	--	-144	--	--	1,031	44,693	1,813
Other Oils for Petro. Feed. Use	--	56,704	20,240	--	394	--	--	4,688	71,862	2,398
Special Naphthas	--	11,932	2,066	--	-54	--	--	1,578	12,474	2,954
Lubricants	--	34,885	2,005	--	-774	--	--	3,997	33,667	13,052
Waxes	--	3,536	226	--	-92	--	--	377	3,477	930
Petroleum Coke	--	115,796	515	--	-988	--	--	49,305	67,994	7,527
Asphalt and Road Oil	--	90,493	5,986	--	5,683	--	--	457	90,339	26,298
Still Gas	--	143,244	0	--	0	--	--	0	143,244	0
Miscellaneous Products	--	13,206	382	--	-436	--	--	373	13,651	2,415
Total	1,883,687	3,210,116	1,801,755	56,265	127,586	13	3,071,719	162,223	3,590,282	1,710,637

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,144	--	6,812	220	-152	0	14,208	89	31
Natural Gas Liquids and LRGs	1,480	580	159	--	291	--	416	38	1,474
Pentanes Plus	310	--	3	--	31	--	186	1	95
Liquefied Petroleum Gases	1,170	580	156	--	259	--	230	36	1,379
Ethane/Ethylene	433	20	0	--	-54	--	0	(s)	507
Propane/Propylene	449	410	90	--	159	--	8	23	758
Normal Butane/Butylene	126	135	45	--	154	--	64	13	74
Isobutane	162	16	21	--	(s)	--	158	0	40
Other Liquids	70	--	422	--	-111	--	768	0	-164
Other Hydrocarbons/Alcohol	70	--	0	--	8	--	62	0	0
Unfinished Oils	--	--	353	--	-164	--	746	0	-230
Motor Gasoline Blend. Comp.	--	--	70	--	46	--	-42	0	65
Aviation Gasoline Blend. Comp.	--	--	0	--	-1	--	1	0	(s)
Finished Petroleum Products	--	15,423	1,499	--	839	--	--	569	15,515
Finished Motor Gasoline	--	7,230	372	--	146	--	--	41	7,415
Leaded	--	406	1	--	1	--	--	3	403
Unleaded	--	6,824	372	--	145	--	--	39	7,012
Finished Aviation Gasoline	--	26	(s)	--	-5	--	--	0	31
Jet Fuel	--	1,400	85	--	117	--	--	10	1,358
Naphtha-Type	--	126	2	--	-20	--	--	1	148
Kerosene-Type	--	1,274	83	--	138	--	--	10	1,210
Kerosene	--	76	1	--	29	--	--	(s)	48
Distillate Fuel Oil	--	3,006	229	--	512	--	--	30	2,693
Residual Fuel Oil	--	987	535	--	72	--	--	171	1,279
Naphtha for Petro. Feed. Use	--	152	67	--	-1	--	--	2	218
Other Oils for Petro. Feed. Use	--	305	150	--	-6	--	--	15	446
Special Naphthas	--	59	4	--	8	--	--	11	43
Lubricants	--	175	12	--	23	--	--	14	150
Waxes	--	21	1	--	1	--	--	2	19
Petroleum Coke	--	554	5	--	-35	--	--	265	329
Asphalt and Road Oil	--	626	37	--	-22	--	--	3	682
Still Gas	--	743	0	--	0	--	--	0	743
Miscellaneous Products	--	65	2	--	1	--	--	3	63
Total	8,694	16,004	8,893	220	866	0	15,392	696	16,856

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,312	--	6,234	265	212	(s)	13,458	110	31
Natural Gas Liquids and LRGs	1,502	544	196	--	146	--	437	38	1,620
Pentanes Plus	301	--	8	--	1	--	176	2	131
Liquefied Petroleum Gases	1,200	544	187	--	145	--	261	37	1,489
Ethane/Ethylene	439	13	4	--	-12	--	(s)	(s)	469
Propane/Propylene	467	400	125	--	75	--	8	25	884
Normal Butane/Butylene	140	119	44	--	74	--	103	11	115
Isobutane	154	12	14	--	9	--	151	0	21
Other Liquids	72	--	465	--	44	--	594	0	-101
Other Hydrocarbons/Alcohol	72	--	0	--	3	--	69	0	0
Unfinished Oils	--	--	390	--	29	--	532	0	-172
Motor Gasoline Blend. Comp.	--	--	75	--	12	--	-6	0	70
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	14,598	1,604	--	199	--	--	617	15,386
Finished Motor Gasoline	--	6,878	384	--	15	--	--	39	7,206
Leaded	--	397	1	--	-33	--	--	5	425
Unleaded	--	6,481	383	--	49	--	--	34	6,781
Finished Aviation Gasoline	--	23	(s)	--	-2	--	--	0	25
Jet Fuel	--	1,409	119	--	47	--	--	22	1,459
Naphtha-Type	--	181	2	--	(s)	--	--	5	178
Kerosene-Type	--	1,228	118	--	48	--	--	17	1,281
Kerosene	--	74	7	--	4	--	--	1	76
Distillate Fuel Oil	--	2,890	305	--	93	--	--	64	3,039
Residual Fuel Oil	--	976	558	--	24	--	--	199	1,311
Naphtha for Petro. Feed. Use	--	132	83	--	-1	--	--	5	211
Other Oils for Petro. Feed. Use	--	267	95	--	2	--	--	22	339
Special Naphthas	--	56	10	--	(s)	--	--	7	59
Lubricants	--	165	9	--	-4	--	--	19	159
Waxes	--	17	1	--	(s)	--	--	2	16
Petroleum Coke	--	546	2	--	-5	--	--	233	321
Asphalt and Road Oil	--	427	28	--	27	--	--	2	426
Still Gas	--	676	0	--	0	--	--	0	676
Miscellaneous Products	--	62	2	--	-2	--	--	2	64
Total	8,885	15,142	8,499	265	602	(s)	14,489	765	16,935

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990

(Thousand Barrels)

Commodity	Supply					Disposition						Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 877	--	43,133	714	388	441	0	44,671	0	0	15,628
Natural Gas Liquids and LRGs	407	1,596	618	--	2,599	499	--	44	147	4,530	5,274
Pentanes Plus	92	--	0	--	0	6	--	0	(s)	86	35
Liquefied Petroleum Gases	315	1,596	618	--	2,599	493	--	44	146	4,445	5,239
Ethane/Ethylene	45	140	0	--	0	0	--	0	2	183	18
Propane/Propylene	164	1,085	605	--	2,469	42	--	0	30	4,251	3,365
Normal Butane/Butylene	79	360	2	--	-6	438	--	0	115	-118	1,801
Isobutane	27	11	11	--	136	13	--	44	0	128	55
Other Liquids	159	--	5,359	--	392	2,058	--	3,707	0	145	20,357
Other Hydrocarbons/Alcohol	159	--	0	--	0	85	--	74	0	0	183
Unfinished Oils	--	--	3,648	--	221	1,352	--	3,837	0	-1,320	15,196
Motor Gasoline Blend. Comp.	--	--	1,711	--	171	621	--	-204	0	1,465	4,978
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	48,747	35,722	--	73,104	17,449	--	--	1,237	138,887	157,335
Finished Motor Gasoline	--	20,366	10,000	--	44,107	1,788	--	--	62	72,623	56,164
Leaded	--	428	0	--	0	-37	--	--	1	464	151
Unleaded	--	19,938	10,000	--	44,107	1,825	--	--	61	72,159	56,013
Finished Aviation Gasoline	--	12	3	--	99	82	--	--	0	32	268
Jet Fuel	--	2,678	1,832	--	10,520	1,683	--	--	1	13,346	13,720
Naphtha-Type	--	164	0	--	254	50	--	--	0	368	859
Kerosene-Type	--	2,514	1,832	--	10,266	1,633	--	--	1	12,978	12,861
Kerosene	--	134	23	--	26	-13	--	--	3	193	2,385
Distillate Fuel Oil	--	11,935	6,516	--	16,337	11,552	--	--	17	23,219	51,663
Residual Fuel Oil	--	4,031	15,540	--	933	1,363	--	--	698	18,443	21,496
Petrochemical Feedstocks[e]	--	488	331	--	-84	-44	--	--	16	763	281
Special Naphthas	--	73	10	--	370	56	--	--	11	386	642
Lubricants	--	581	338	--	397	264	--	--	148	904	3,163
Waxes	--	86	28	--	5	-6	--	--	9	116	52
Petroleum Coke	--	1,330	0	--	0	-168	--	--	260	1,238	834
Asphalt and Road Oil	--	4,583	1,046	--	313	919	--	--	2	5,021	5,895
Still Gas	--	2,168	0	--	0	0	--	--	0	2,168	0
Miscellaneous Products	--	282	55	--	81	-27	--	--	11	434	772
Total	1,443	50,343	84,832	714	76,483	20,447	0	48,422	1,384	143,562	198,594

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 32	--	1,277	12	18	11	(s)	1,328	(s)	0
Natural Gas Liquids and LRGs	24	48	42	--	82	12	--	2	3	179
Pentanes Plus	4	--	3	--	0	(s)	--	(s)	(s)	7
Liquefied Petroleum Gases	20	48	39	--	82	12	--	2	3	172
Ethane/Ethylene	6	5	0	--	0	(s)	--	0	(s)	10
Propane/Propylene	9	36	36	--	79	7	--	0	1	153
Normal Butane/Butylene	4	8	2	--	1	5	--	1	2	7
Isobutane	1	(s)	(s)	--	2	(s)	--	1	0	2
Other Liquids	2	--	172	--	13	16	--	134	0	38
Other Hydrocarbons/Alcohol	2	--	0	--	0	(s)	--	2	0	0
Unfinished Oils	--	--	110	--	5	13	--	125	0	-24
Motor Gasoline Blend. Comp.	--	--	62	--	8	3	--	6	0	61
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,478	1,271	--	2,385	123	--	--	31	4,981
Finished Motor Gasoline	--	642	337	--	1,414	17	--	--	1	2,375
Leaded	--	9	0	--	4	-4	--	--	(s)	17
Unleaded	--	634	337	--	1,410	21	--	--	1	2,358
Finished Aviation Gasoline	--	(s)	(s)	--	3	(s)	--	--	0	4
Jet Fuel	--	98	86	--	340	16	--	--	(s)	508
Naphtha-Type	--	14	0	--	16	-2	--	--	(s)	33
Kerosene-Type	--	83	86	--	324	18	--	--	(s)	475
Kerosene	--	8	4	--	11	1	--	--	(s)	22
Distillate Fuel Oil	--	352	292	--	554	78	--	--	1	1,119
Residual Fuel Oil	--	146	505	--	29	13	--	--	13	654
Petrochemical Feedstocks[e]	--	12	9	--	-4	(s)	--	--	(s)	17
Special Naphthas	--	4	1	--	8	-1	--	--	(s)	13
Lubricants	--	21	8	--	15	(s)	--	--	5	38
Waxes	--	2	1	--	(s)	(s)	--	--	(s)	3
Petroleum Coke	--	42	0	--	0	(s)	--	--	9	34
Asphalt and Road Oil	--	80	27	--	11	-1	--	--	1	118
Still Gas	--	63	0	--	0	0	--	--	0	63
Miscellaneous Products	--	9	2	--	2	(s)	--	--	(s)	13
Total	58	1,527	2,762	12	2,498	161	(s)	1,464	34	5,197

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 22,363	--	15,938	-2,001	63,124	-714	0	99,754	384	0	83,406
Natural Gas Liquids and LRGs	8,465	3,558	1,566	--	1,788	3,037	--	3,122	346	8,872	35,350
Pentanes Plus	1,426	--	38	--	689	156	--	1,479	0	518	2,444
Liquefied Petroleum Gases	7,039	3,558	1,528	--	1,099	2,881	--	1,643	346	8,354	32,906
Ethane/Ethylene	2,220	26	0	--	-584	-377	--	0	0	2,039	4,773
Propane/Propylene	3,103	3,291	1,085	--	1,086	1,926	--	66	152	6,421	18,009
Normal Butane/Butylene	1,036	264	437	--	32	1,229	--	158	194	188	7,183
Isobutane	680	-23	6	--	565	103	--	1,419	0	-294	2,941
Other Liquids	122	--	0	--	144	-1,561	--	3,407	0	-1,580	25,464
Other Hydrocarbons/Alcohol	122	--	0	--	0	33	--	89	0	0	263
Unfinished Oils	--	--	0	--	-219	-1,424	--	2,424	0	-1,219	16,750
Motor Gasoline Blend. Comp.	--	--	0	--	363	-124	--	848	0	-361	8,389
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-46	--	46	0	0	62
Finished Petroleum Products	--	106,976	608	--	21,101	-1,421	--	--	1,002	129,104	112,497
Finished Motor Gasoline	--	56,626	173	--	12,755	-1,806	--	--	113	71,247	48,970
Leaded	--	2,407	0	--	75	-255	--	--	(s)	2,737	3,201
Unleaded	--	54,219	173	--	12,680	-1,551	--	--	113	68,510	45,769
Finished Aviation Gasoline	--	148	0	--	97	-14	--	--	0	259	464
Jet Fuel	--	5,745	49	--	3,108	581	--	--	20	8,301	10,085
Naphtha-Type	--	470	49	--	87	-104	--	--	0	710	987
Kerosene-Type	--	5,275	0	--	3,021	685	--	--	20	7,591	9,098
Kerosene	--	334	0	--	-26	150	--	--	2	156	1,557
Distillate Fuel Oil	--	23,463	225	--	4,864	1,553	--	--	67	26,932	31,602
Residual Fuel Oil	--	2,106	0	--	-550	-269	--	--	(s)	1,825	3,574
Petrochemical Feedstocks[e]	--	1,276	36	--	55	13	--	--	1	1,353	324
Special Naphthas	--	595	40	--	138	93	--	--	44	636	729
Lubricants	--	818	28	--	319	234	--	--	37	894	2,120
Waxes	--	51	1	--	0	-4	--	--	1	55	122
Petroleum Coke	--	3,805	0	--	0	-783	--	--	626	3,962	2,219
Asphalt and Road Oil	--	6,761	49	--	350	-1,212	--	--	86	8,286	10,497
Still Gas	--	4,774	0	--	0	0	--	--	0	4,774	0
Miscellaneous Products	--	474	7	--	-9	43	--	--	4	425	234
Total	30,950	110,534	18,112	-2,001	86,157	-659	0	106,283	1,731	136,397	256,717

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 738	--	475	-7	1,872	62	0	3,004	13	0
Natural Gas Liquids and LRGs	273	109	75	--	54	57	--	113	9	332
Pentanes Plus	45	--	1	--	16	-3	--	43	0	23
Liquefied Petroleum Gases	228	109	74	--	38	60	--	70	9	309
Ethane/Ethylene	65	1	0	--	-19	3	--	(s)	(s)	43
Propane/Propylene	105	100	56	--	41	40	--	2	5	255
Normal Butane/Butylene	37	7	15	--	-3	15	--	25	4	12
Isobutane	21	1	3	--	19	3	--	43	0	-2
Other Liquids	5	--	(s)	--	-1	3	--	46	0	-45
Other Hydrocarbons/Alcohol	5	--	0	--	0	1	--	4	0	0
Unfinished Oils	--	--	0	--	-1	-1	--	22	0	-21
Motor Gasoline Blend. Comp.	--	--	(s)	--	(s)	3	--	20	0	-23
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	3,193	19	--	699	20	--	--	15	3,876
Finished Motor Gasoline	--	1,706	5	--	444	-4	--	--	1	2,159
Leaded	--	77	0	--	6	-12	--	--	(s)	94
Unleaded	--	1,630	5	--	438	7	--	--	1	2,065
Finished Aviation Gasoline	--	3	0	--	3	(s)	--	--	0	6
Jet Fuel	--	191	2	--	91	8	--	--	(s)	276
Naphtha-Type	--	15	2	--	3	(s)	--	--	(s)	19
Kerosene-Type	--	177	(s)	--	88	8	--	--	(s)	256
Kerosene	--	15	0	--	(s)	(s)	--	--	(s)	15
Distillate Fuel Oil	--	710	6	--	151	4	--	--	2	861
Residual Fuel Oil	--	70	2	--	-13	(s)	--	--	1	58
Petrochemical Feedstocks[e]	--	36	1	--	3	(s)	--	--	(s)	40
Special Naphthas	--	16	1	--	4	1	--	--	(s)	21
Lubricants	--	26	1	--	10	(s)	--	--	1	35
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	122	0	--	0	-5	--	--	9	118
Asphalt and Road Oil	--	142	(s)	--	6	17	--	--	1	131
Still Gas	--	140	0	--	0	0	--	--	0	140
Miscellaneous Products	--	15	(s)	--	(s)	(s)	--	--	(s)	15
Total	1,016	3,302	570	-7	2,624	141	0	3,163	38	4,163

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 100,769	--	140,703	8,674	-53,217	-2,878	0	199,807	0	0	767,775
Natural Gas Liquids and LRGs	31,662	10,598	2,478	--	-3,004	4,903	--	7,385	368	29,078	75,815
Pentanes Plus	6,038	--	1	--	-445	820	--	3,296	37	1,441	6,012
Liquefied Petroleum Gases	25,624	10,598	2,477	--	-2,559	4,083	--	4,089	331	27,637	69,803
Ethane/Ethylene	10,750	406	0	--	847	-1,282	--	0	0	13,285	15,789
Propane/Propylene	9,159	7,133	1,003	--	-3,144	2,780	--	178	229	10,964	26,412
Normal Butane/Butylene	1,776	2,709	910	--	275	2,785	--	953	103	1,829	21,187
Isobutane	3,939	350	564	--	-537	-200	--	2,958	0	1,558	6,415
Other Liquids	1,474	--	7,584	--	-536	-2,446	--	13,459	0	-2,491	69,431
Other Hydrocarbons/Alcohol	1,474	--	0	--	0	26	--	1,448	0	0	517
Unfinished Oils	--	--	7,286	--	-2	-3,705	--	14,415	0	-3,426	52,051
Motor Gasoline Blend. Comp.	--	--	298	--	-534	1,226	--	-2,396	0	934	16,786
Aviation Gasoline Blend. Comp.	--	--	0	--	0	7	--	-8	0	1	77
Finished Petroleum Products	--	218,561	7,910	--	-96,656	10,459	--	--	8,149	111,207	133,340
Finished Motor Gasoline	--	100,610	338	--	-58,196	3,823	--	--	1,092	37,837	49,908
Leaded	--	1,586	0	--	-175	-140	--	--	79	1,472	961
Unleaded	--	99,024	338	--	-58,021	3,963	--	--	1,014	36,364	48,947
Finished Aviation Gasoline	--	428	0	--	-217	-112	--	--	0	323	567
Jet Fuel	--	22,822	472	--	-14,514	1,807	--	--	240	6,733	18,181
Naphtha-Type	--	2,410	0	--	-503	-83	--	--	15	1,975	2,586
Kerosene-Type	--	20,412	472	--	-14,011	1,890	--	--	225	4,758	15,595
Kerosene	--	1,751	0	--	0	724	--	--	1	1,026	1,893
Distillate Fuel Oil	--	40,722	0	--	-21,459	3,621	--	--	671	14,971	28,478
Residual Fuel Oil	--	11,147	564	--	-383	662	--	--	812	9,854	14,610
Petrochemical Feedstocks[e]	--	12,226	6,322	--	29	-142	--	--	195	18,524	3,372
Special Naphthas	--	1,055	64	--	-508	51	--	--	232	328	1,420
Lubricants	--	3,473	0	--	-668	235	--	--	172	2,398	5,870
Waxes	--	366	2	--	-5	9	--	--	36	318	433
Petroleum Coke	--	7,821	107	--	0	-63	--	--	4,625	3,366	2,701
Asphalt and Road Oil	--	4,270	40	--	-663	-191	--	--	3	3,835	4,724
Still Gas	--	10,787	0	--	0	0	--	--	0	10,787	0
Miscellaneous Products	--	1,083	1	--	-72	35	--	--	70	907	1,183
Total	133,905	229,159	158,675	8,674	-153,413	10,038	0	220,651	8,518	137,793	1,046,361

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,299	--	4,151	242	-1,489	123	(s)	6,081	0	0
Natural Gas Liquids and LRGs	1,019	322	66	--	-79	80	--	246	16	986
Pentanes Plus	188	--	1	--	-7	5	--	101	2	76
Liquefied Petroleum Gases	830	322	65	--	-71	75	--	145	15	910
Ethane/Ethylene	346	7	4	--	37	-15	--	(s)	0	408
Propane/Propylene	300	221	27	--	-105	27	--	6	10	400
Normal Butane/Butylene	66	83	24	--	12	58	--	46	5	77
Isobutane	119	11	10	--	-15	6	--	93	0	25
Other Liquids	50	--	287	--	-15	9	--	391	0	-78
Other Hydrocarbons/Alcohol	50	--	0	--	0	1	--	49	0	0
Unfinished Oils	--	--	277	--	-7	-4	--	381	0	-107
Motor Gasoline Blend. Comp.	--	--	11	--	-8	12	--	-39	0	29
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	6,699	258	--	-3,162	69	--	--	297	3,429
Finished Motor Gasoline	--	3,117	24	--	-1,903	19	--	--	35	1,184
Leaded	--	78	(s)	--	-15	-9	--	--	5	66
Unleaded	--	3,039	24	--	-1,888	28	--	--	30	1,118
Finished Aviation Gasoline	--	14	0	--	-6	(s)	--	--	0	8
Jet Fuel	--	689	25	--	-460	26	--	--	11	218
Naphtha-Type	--	97	0	--	-24	4	--	--	(s)	69
Kerosene-Type	--	592	25	--	-436	23	--	--	11	149
Kerosene	--	48	2	--	-11	4	--	--	(s)	35
Distillate Fuel Oil	--	1,281	2	--	-710	17	--	--	41	515
Residual Fuel Oil	--	372	27	--	-16	4	--	--	52	327
Petrochemical Feedstocks[e]	--	341	166	--	1	2	--	--	18	488
Special Naphthas	--	33	8	--	-13	(s)	--	--	4	24
Lubricants	--	99	(s)	--	-24	-4	--	--	9	70
Waxes	--	10	(s)	--	(s)	(s)	--	--	1	9
Petroleum Coke	--	238	1	--	0	(s)	--	--	124	115
Asphalt and Road Oil	--	112	1	--	-17	3	--	--	(s)	93
Still Gas	--	313	0	--	0	0	--	--	0	313
Miscellaneous Products	--	33	(s)	--	-2	-1	--	--	1	31
Total	4,368	7,021	4,762	242	-4,744	280	(s)	6,718	313	4,337

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 15,165	--	2,647	451	-3,578	-759	0	15,444	0	0	12,581
Natural Gas Liquids and LRGs	2,994	249	158	--	-1,383	15	--	487	3	1,513	1,119
Pentanes Plus	703	--	60	--	-244	4	--	129	0	386	153
Liquefied Petroleum Gases	2,291	249	98	--	-1,139	11	--	358	3	1,127	966
Ethane/Ethylene	398	0	0	--	-263	-6	--	0	0	141	133
Propane/Propylene	1,183	211	62	--	-411	1	--	0	2	1,042	408
Normal Butane/Butylene	497	38	14	--	-301	25	--	241	1	-19	296
Isobutane	213	0	22	--	-164	-9	--	117	0	-37	129
Other Liquids	16	--	0	--	0	-277	--	284	0	9	3,863
Other Hydrocarbons/Alcohol	16	--	0	--	0	7	--	9	0	0	70
Unfinished Oils	--	--	0	--	0	-203	--	135	0	68	2,055
Motor Gasoline Blend. Comp.	--	--	0	--	0	-81	--	140	0	-59	1,738
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	16,277	175	--	-669	-1,269	--	--	15	17,037	11,295
Finished Motor Gasoline	--	8,075	57	--	-389	-307	--	--	(s)	8,050	4,436
Leaded	--	2,184	16	--	-400	-38	--	--	(s)	1,838	1,396
Unleaded	--	5,891	41	--	11	-269	--	--	0	6,212	3,040
Finished Aviation Gasoline	--	45	0	--	21	18	--	--	0	48	50
Jet Fuel	--	1,094	0	--	361	-205	--	--	0	1,660	991
Naphtha-Type	--	350	0	--	-141	-101	--	--	0	310	242
Kerosene-Type	--	744	0	--	502	-104	--	--	0	1,350	749
Kerosene	--	40	0	--	0	39	--	--	0	1	70
Distillate Fuel Oil	--	4,226	109	--	-662	6	--	--	0	3,667	3,123
Residual Fuel Oil	--	311	9	--	0	9	--	--	0	311	527
Petrochemical Feedstocks[e]	--	9	0	--	0	-33	--	--	0	42	2
Special Naphthas	--	0	0	--	0	-1	--	--	0	1	7
Lubricants	--	-32	0	--	0	-51	--	--	8	11	73
Waxes	--	38	0	--	0	-11	--	--	0	49	92
Petroleum Coke	--	374	0	--	0	-16	--	--	7	383	26
Asphalt and Road Oil	--	1,346	0	--	0	-721	--	--	(s)	2,067	1,884
Still Gas	--	686	0	--	0	0	--	--	0	686	0
Miscellaneous Products	--	65	0	--	0	4	--	--	(s)	61	14
Total	18,175	16,526	2,980	451	-5,630	-2,290	0	16,215	19	18,558	28,858

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 501	–	70	27	-137	1	0	460	(s)	0
Natural Gas Liquids and LRGs	115	8	8	–	-57	(s)	--	18	(s)	56
Pentanes Plus	24	--	3	--	-9	(s)	--	5	0	13
Liquefied Petroleum Gases	91	8	5	--	-48	(s)	--	13	(s)	43
Ethane/Ethylene	23	(s)	0	--	-17	(s)	--	0	0	6
Propane/Propylene	42	6	3	--	-16	(s)	--	(s)	(s)	37
Normal Butane/Butylene	17	2	1	--	-10	(s)	--	10	(s)	1
Isobutane	8	(s)	(s)	--	-6	(s)	--	3	0	-1
Other Liquids	1	–	(s)	–	0	-5	–	3	0	3
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	1	0	0
Unfinished Oils	--	--	(s)	--	0	-2	--	-1	0	4
Motor Gasoline Blend. Comp.	--	--	0	--	0	-2	--	4	0	-1
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	(s)	0	(s)
Finished Petroleum Products	–	483	3	–	-22	-4	–	–	(s)	469
Finished Motor Gasoline	--	240	1	--	-17	-4	--	--	(s)	228
Leaded	--	60	(s)	--	-13	-3	--	--	(s)	51
Unleaded	--	180	1	--	-5	-1	--	--	(s)	177
Finished Aviation Gasoline	--	1	0	--	(s)	(s)	--	--	0	1
Jet Fuel	--	40	0	--	10	-1	--	--	(s)	50
Naphtha-Type	--	14	0	--	-6	-1	--	--	0	8
Kerosene-Type	--	26	0	--	16	(s)	--	--	(s)	42
Kerosene	--	(s)	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	124	2	--	-15	-1	--	--	(s)	112
Residual Fuel Oil	--	11	(s)	--	0	(s)	--	--	0	11
Petrochemical Feedstocks[e]	--	(s)	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Lubricants	--	(s)	0	--	0	(s)	--	--	(s)	1
Waxes	--	1	0	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	11
Asphalt and Road Oil	--	33	0	--	0	1	--	--	(s)	32
Still Gas	--	20	0	--	0	0	--	--	0	20
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	616	491	82	27	-216	-9	0	481	(s)	527

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, July 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 82,284	--	8,752	-1,015	-6,717	-809	0	80,764	2,383	966	86,806
Natural Gas Liquids and LRGs	2,344	1,992	101	--	0	560	--	1,867	307	1,703	3,462
Pentanes Plus	1,356	--	0	--	0	-12	--	858	2	508	87
Liquefied Petroleum Gases	988	1,992	101	--	0	572	--	1,009	305	1,195	3,375
Ethane/Ethylene	1	54	0	--	0	0	--	0	0	55	0
Propane/Propylene	301	991	33	--	0	191	--	7	301	826	736
Normal Butane/Butylene	523	803	28	--	0	295	--	631	3	425	2,198
Isobutane	163	144	40	--	0	86	--	371	0	-110	441
Other Liquids	403	--	153	--	0	-1,219	--	2,946	0	-1,171	33,791
Other Hydrocarbons/Alcohol	403	--	0	--	0	87	--	316	0	0	309
Unfinished Oils	--	--	0	--	0	-1,106	--	2,326	0	-1,220	26,377
Motor Gasoline Blend. Comp.	--	--	153	--	0	-203	--	307	0	49	7,102
Aviation Gasoline Blend. Comp.	--	--	0	--	0	3	--	-3	0	0	3
Finished Petroleum Products	--	87,562	2,064	--	3,120	788	--	--	7,226	84,732	56,048
Finished Motor Gasoline	--	38,442	970	--	1,723	1,020	--	--	17	40,098	20,880
Leaded	--	5,979	0	--	500	499	--	--	6	5,974	4,880
Unleaded	--	32,463	970	--	1,223	521	--	--	11	34,124	16,000
Finished Aviation Gasoline	--	160	5	--	0	-135	--	--	0	300	323
Jet Fuel	--	11,074	279	--	525	-230	--	--	58	12,050	7,914
Naphtha-Type	--	516	4	--	303	-397	--	--	1	1,219	1,660
Kerosene-Type	--	10,558	275	--	222	167	--	--	57	10,831	6,254
Kerosene	--	87	0	--	0	-14	--	--	4	97	52
Distillate Fuel Oil	--	12,847	241	--	920	-874	--	--	189	14,693	10,384
Residual Fuel Oil	--	12,993	483	--	0	469	--	--	3,798	9,209	8,793
Petrochemical Feedstocks[e]	--	166	30	--	0	-21	--	--	317	-100	232
Special Naphthas	--	91	2	--	0	58	--	--	45	-10	156
Lubricants	--	582	0	--	-48	19	--	--	80	435	1,826
Waxes	--	103	1	--	0	41	--	--	10	53	231
Petroleum Coke	--	3,835	51	--	0	-46	--	--	2,691	1,241	1,747
Asphalt and Road Oil	--	2,459	2	--	0	526	--	--	14	1,921	3,298
Still Gas	--	4,608	0	--	0	0	--	--	0	4,608	0
Miscellaneous Products	--	115	0	--	0	-25	--	--	3	137	212
Total	85,031	89,554	11,070	-1,015	-3,597	-680	0	85,577	9,916	86,230	180,107

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-July 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 2,742	--	260	-9	-264	16	0	2,586	96	31
Natural Gas Liquids and LRGs	71	57	5	--	0	-2	–	58	9	68
Pentanes Plus	40	--	0	--	0	(s)	--	27	(s)	13
Liquefied Petroleum Gases	31	57	5	--	0	-2	--	31	9	55
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	(s)	1
Propane/Propylene	10	36	3	--	0	(s)	--	(s)	9	39
Normal Butane/Butylene	16	19	1	--	0	-3	--	21	(s)	18
Isobutane	5	1	1	--	0	1	--	10	0	-4
Other Liquids	15	--	5	--	3	21	–	20	0	-19
Other Hydrocarbons/Alcohol	15	--	0	--	0	1	--	13	0	0
Unfinished Oils	--	--	3	--	3	24	--	5	0	-23
Motor Gasoline Blend. Comp.	--	--	2	--	0	-3	--	1	0	4
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	2,744	53	--	101	-8	–	--	274	2,632
Finished Motor Gasoline	--	1,172	16	--	62	-13	--	--	2	1,261
Leaded	--	173	1	--	18	-6	--	--	(s)	197
Unleaded	--	999	16	--	44	-7	--	--	2	1,064
Finished Aviation Gasoline	--	5	(s)	--	(s)	-1	--	--	0	6
Jet Fuel	--	390	6	--	18	-3	--	--	11	407
Naphtha-Type	--	41	(s)	--	11	-1	--	--	5	48
Kerosene-Type	--	350	6	--	7	-2	--	--	6	359
Kerosene	--	3	0	--	0	(s)	--	--	(s)	3
Distillate Fuel Oil	--	423	3	--	21	-5	--	--	20	433
Residual Fuel Oil	--	378	24	--	1	8	--	--	133	261
Petrochemical Feedstocks[e]	--	11	1	--	0	-1	--	--	9	4
Special Naphthas	--	3	(s)	--	0	(s)	--	--	2	1
Lubricants	--	19	(s)	--	-1	(s)	--	--	3	15
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	133	1	--	0	(s)	--	--	91	43
Asphalt and Road Oil	--	60	(s)	--	0	7	--	--	(s)	53
Still Gas	--	140	0	--	0	0	--	--	0	140
Miscellaneous Products	--	4	0	--	0	(s)	--	--	(s)	4
Total	2,828	2,801	323	-9	-161	28	0	2,663	379	2,711

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	May 1990		January-May 1990	
	Total	Daily Average	Total	Daily Average
PAD District I	E 983	E 32	E 4,965	E 33
Florida	526	17	2,721	18
New York	E 36	E 1	E 181	E 1
Pennsylvania	E 227	E 7	E 1,131	E 7
Virginia	2	(s)	8	(s)
West Virginia	177	6	919	5
Adjustment[a]	16	1	7	(s)
PAD District II	E 22,801	E 736	E 112,410	E 744
Illinois	1,628	53	8,248	55
Indiana	251	8	1,283	8
Kansas	4,600	148	22,535	149
Kentucky	440	14	2,185	14
Michigan	E 1,700	E 55	E 8,339	E 55
Missouri	11	(s)	55	(s)
Nebraska	500	16	2,440	16
North Dakota	3,121	101	15,231	101
Ohio	E 760	E 25	E 4,139	E 27
Oklahoma	8,552	276	45,282	300
South Dakota	136	4	685	5
Tennessee	43	1	224	1
Adjustment[a]	1,060	34	1,764	12
PAD District III	E 101,221	E 3,265	E 501,278	E 3,320
Alabama	1,622	52	7,874	52
Arkansas	E 901	E 29	E 4,410	E 29
Louisiana[b]	E 11,977	E 386	E 61,239	E 406
Mississippi	2,272	73	11,108	74
New Mexico	5,671	183	27,928	185
Texas[b]	56,871	1,835	279,868	1,853
Federal Offshore PAD District III	20,817	672	E 105,283	E 697
Adjustment[a]	1,091	35	3,571	24
PAD District IV	15,457	499	E 76,135	E 504
Colorado	2,601	84	12,300	81
Montana	1,620	52	E 8,153	E 54
Utah	2,380	77	11,677	77
Wyoming	8,876	286	43,224	286
Adjustment[a]	-19	-1	783	5
PAD District V	84,578	2,728	421,605	2,792
Alaska[b]	54,731	1,766	274,337	1,817
South Alaska	408	13	3,232	21
North Slope	54,322	1,752	271,103	1,795
Adjustment for Alaska[a]	1	(s)	1	(s)
Arizona	9	(s)	52	(s)
California[b]	27,254	879	133,093	881
Nevada	343	11	1,583	10
Federal Offshore PAD District V	2,681	86	12,976	86
Adjustment excluding Alaska[a]	-441	-14	-439	-3
U.S. Total[b]	E 225,040	E 7,259	E 1,116,393	E 7,393

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 3,511; California: State - 1,998; Louisiana: State - E1,746; Texas: State -148; U.S. Total, including Federal offshore - E30,902.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, July 1990

(Thousand Barrels)

Commodity	PAD District I East Coast	PAD District I Appalachian No. 1	PAD District I Total	PAD District II Ind., Ill., Ky.	PAD District II Minn.,Wis., N. Dak., S. Dak.	PAD District II Okla., Kans., Mo.	PAD District II Total
				Net Production			
Natural Gas Liquids	224	183	407	608	408	7,449	8,465
Pentanes Plus	61	31	92	127	105	1,194	1,426
Liquefied Petroleum Gases	163	152	315	481	303	6,255	7,039
Ethane	40	5	45	68	0	2,152	2,220
Propane	64	100	164	235	174	2,694	3,103
Normal Butane	42	37	79	98	125	813	1,036
Isobutane	17	10	27	80	4	596	680
				Stocks			
Natural Gas Liquids	182	23	205	112	43	1,617	1,772
Pentanes Plus	8	0	8	20	18	160	198
Liquefied Petroleum Gases	174	23	197	92	25	1,457	1,574
Ethane	0	0	0	9	0	565	574
Propane	107	22	129	43	16	557	616
Normal Butane	65	1	66	20	9	260	289
Isobutane	2	0	2	20	0	75	95

Commodity	PAD District III Texas Inland	PAD District III Texas Gulf Coast	PAD District III La. Gulf Coast	PAD District III N. La., Ark.	PAD District III New Mexico	PAD District III Total	PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast	U.S. Total
					Net Production				
Natural Gas Liquids	17,836	2,584	6,925	642	3,675	31,662	2,994	2,344	45,872
Pentanes Plus	3,443	601	1,263	185	546	6,038	703	1,356	9,615
Liquefied Petroleum Gases	14,393	1,983	5,662	457	3,129	25,624	2,291	988	36,257
Ethane	5,883	958	2,384	95	1,430	10,750	398	1	13,414
Propane	5,282	642	1,963	192	1,080	9,159	1,183	301	13,910
Normal Butane	2,355	-1,664	554	120	411	1,776	497	523	3,911
Isobutane	873	2,047	761	50	208	3,939	213	163	5,022
					Stocks				
Natural Gas Liquids	978	4,178	1,891	148	64	7,259	182	115	9,533
Pentanes Plus	441	544	428	40	5	1,458	67	22	1,753
Liquefied Petroleum Gases	537	3,634	1,463	108	59	5,801	115	93	7,780
Ethane	87	685	64	38	15	889	5	0	1,468
Propane	207	797	246	37	35	1,322	68	76	2,211
Normal Butane	201	1,469	866	27	7	2,570	33	11	2,969
Isobutane	42	683	287	6	2	1,020	9	6	1,132

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, July 1990
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	41,571	3,100	44,671	65,443	11,191	23,120	99,754
Natural Gas Liquids	44	0	44	1,892	70	1,160	3,122
Pentanes Plus	0	0	0	807	15	657	1,479
Liquefied Petroleum Gases	44	0	44	1,085	55	503	1,643
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	66	0	0	66
Normal Butane	0	0	0	88	4	66	158
Isobutane	44	0	44	931	51	437	1,419
Other Liquids	3,442	265	3,707	2,465	20	922	3,407
Other Hydrocarbons/Alcohol	74	0	74	85	4	0	89
Unfinished Oils (net)	3,563	274	3,837	1,751	18	655	2,424
Motor Gasoline Blend. Comp. (net)	-195	-9	-204	596	-2	254	848
Aviation Gasoline Blend. Comp. (net)	0	0	0	33	0	13	46
Total Input to Refineries	45,057	3,365	48,422	69,800	11,281	25,202	106,283
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,307	100	1,407	2,147	363	752	3,262
Operable Capacity (daily average)	1,337	124	1,461	2,194	343	740	3,278
Operable Utilization Rate (percent)[a,b]	97.8	80.6	96.4	97.8	105.9	101.6	99.5
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	500	18	518	781	121	261	1,163
Catalytic Hydrocracking	72	4	77	119	0	6	126
Delayed and Fluid Coking	76	0	76	160	40	64	263
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.34	0.61	1.29	1.09	1.79	0.66	1.07
API Gravity, Weighted Average (degrees)	29.70	37.85	30.25	33.95	31.25	35.91	34.10
Operable Capacity (daily average)	1,337	124	1,461	2,194	343	740	3,278
Operating	1,337	124	1,461	2,193	343	740	3,276
Idle	0	0	0	1	0	0	1
Alaskan Crude Oil Receipts	0	0	0	1,102	0	536	1,638

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, July 1990 (Continued)
(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**16,433**	**98,149**	**76,873**	**5,945**	**2,407**	**199,807**	**15,444**	**80,764**	**440,440**
Natural Gas Liquids	**1,313**	**2,925**	**2,654**	**250**	**233**	**7,385**	**487**	**1,867**	**12,905**
Pentanes Plus	938	1,422	593	162	181	3,296	129	858	5,762
Liquefied Petroleum Gases	375	1,503	2,061	98	52	4,089	358	1,009	7,143
Ethane	0	0	0	0	0	0	0	0	0
Propane	1	82	95	0	0	178	0	7	251
Normal Butane	44	251	657	0	1	953	241	631	1,983
Isobutane	330	1,170	1,309	98	51	2,958	117	371	4,909
Other Liquids	**224**	**12,022**	**1,098**	**94**	**21**	**13,459**	**284**	**2,946**	**23,803**
Other Hydrocarbons/Alcohol	129	866	429	10	14	1,448	9	316	1,936
Unfinished Oils (net)	99	13,361	838	78	39	14,415	135	2,326	23,137
Motor Gasoline Blend. Comp. (net)	-4	-2,204	-162	6	-32	-2,396	140	307	-1,305
Aviation Gasoline Blend. Comp. (net)	0	-1	-7	0	0	-8	0	-3	35
Total Input to Refineries	**17,970**	**113,096**	**80,625**	**6,299**	**2,661**	**220,651**	**16,215**	**85,577**	**477,148**
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	534	3,182	2,522	185	78	6,502	501	2,726	14,397
Operable Capacity (daily average)	579	3,339	2,922	255	78	7,172	555	3,078	15,543
Operable Utilization Rate (percent)[a,b]	92.2	95.3	86.3	72.8	99.8	90.7	90.2	88.6	92.6
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	192	1,368	812	32	28	2,432	178	684	4,975
Catalytic Hydrocracking	23	183	217	0	0	423	5	390	1,021
Delayed and Fluid Coking	10	193	339	14	0	555	22	427	1,343
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.75	1.03	1.36	1.53	0.74	1.15	1.00	1.14	1.14
API Gravity, Weighted Average (degrees)	38.04	33.65	30.78	32.89	39.16	32.92	35.10	25.61	31.66
Operable Capacity (daily average)	**579**	**3,339**	**2,922**	**255**	**78**	**7,172**	**555**	**3,078**	**15,543**
Operating	547	3,280	2,583	228	74	6,712	540	3,047	15,036
Idle	32	59	339	27	4	461	15	30	507
Alaskan Crude Oil Receipts	**0**	**6,589**	**257**	**0**	**0**	**6,846**	**0**	**44,085**	**52,569**

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[a] Represents gross input divided by operable capacity.
[b] See Table H2 in the Highlights Section for additional information concerning utilization rates.
(s) = Less than 500 barrels.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, July 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,547	49	1,596	2,710	270	578	3,558
Ethane/Ethylene	140	0	140	26	0	0	26
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,053	32	1,085	2,402	257	632	3,291
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	333	27	360	287	31	-54	264
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	21	-10	11	-5	-18	0	-23
Finished Motor Gasoline	19,179	1,187	20,366	37,598	5,555	13,473	56,626
Leaded	358	70	428	257	531	1,619	2,407
Unleaded	18,821	1,117	19,938	37,341	5,024	11,854	54,219
Finished Aviation Gasoline	12	0	12	84	35	29	148
Jet Fuel	2,578	100	2,678	3,824	606	1,315	5,745
Naphtha-Type	64	100	164	175	13	282	470
Kerosene-Type	2,514	0	2,514	3,649	593	1,033	5,275
Kerosene	71	63	134	311	0	23	334
Distillate Fuel Oil	10,909	1,026	11,935	14,356	2,755	6,352	23,463
Residual Fuel Oil	3,940	91	4,031	1,597	321	188	2,106
Less than 0.31 percent sulfur	-12	50	38	50	0	0	50
0.31 to 1.00 percent sulfur	3,077	41	3,118	146	0	83	229
Greater than 1.00 percent sulfur	875	0	875	1,401	321	105	1,827
Naphtha for Petrochemical Feedstock Use	474	0	474	614	0	40	654
Other Oils for Petrochemical Feedstock Use	14	0	14	586	0	36	622
Special Naphthas	35	38	73	259	0	336	595
Lubricants	342	239	581	588	0	230	818
Naphthenic	93	0	93	0	0	0	0
Paraffinic	249	239	488	588	0	230	818
Waxes	0	86	86	28	0	23	51
Petroleum Coke	1,302	28	1,330	2,458	490	857	3,805
Marketable	399	0	399	1,397	321	554	2,272
Catalyst	903	28	931	1,061	169	303	1,533
Asphalt and Road Oil	4,323	260	4,583	4,232	1,340	1,189	6,761
Still Gas	1,998	170	2,168	3,300	373	1,101	4,774
Miscellaneous Products	246	36	282	383	43	48	474
Fuel Use	9	0	9	0	0	0	0
Nonfuel Use	237	36	273	383	43	48	474
Total	**46,970**	**3,373**	**50,343**	**72,928**	**11,788**	**25,818**	**110,534**
Processing Gain(-) or Loss(+)[a]	-1,913	-8	-1,921	-3,128	-507	-616	-4,251

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, July 1990 (Continued)
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	715	6,059	3,548	130	146	10,598	249	1,992	17,993
Ethane/Ethylene	-45	287	164	0	0	406	0	54	626
Ethane	W	W	W	W	W	W	W	W	431
Ethylene	W	W	W	W	W	W	W	W	195
Propane/Propylene	651	4,030	2,286	90	76	7,133	211	991	12,711
Propane	W	W	W	W	W	W	W	W	9,238
Propylene	W	W	W	W	W	W	W	W	3,473
Normal Butane/Butylene	-171	1,639	1,147	36	58	2,709	38	803	4,174
Normal Butane	W	W	W	W	W	W	W	W	3,830
Butylene	W	W	W	W	W	W	W	W	344
Isobutane	280	103	-49	4	12	350	0	144	482
Finished Motor Gasoline	9,700	51,456	36,199	1,816	1,439	100,610	8,075	38,442	224,119
Leaded	622	71	569	2	322	1,586	2,184	5,979	12,584
Unleaded	9,078	51,385	35,630	1,814	1,117	99,024	5,891	32,463	211,535
Finished Aviation Gasoline	150	149	129	0	0	428	45	160	793
Jet Fuel	1,758	10,445	9,982	306	331	22,822	1,094	11,074	43,413
Naphtha-Type	690	845	434	170	271	2,410	350	516	3,910
Kerosene-Type	1,068	9,600	9,548	136	60	20,412	744	10,558	39,503
Kerosene	47	1,392	301	11	0	1,751	40	87	2,346
Distillate Fuel Oil	3,666	18,666	16,136	1,697	557	40,722	4,226	12,847	93,193
Residual Fuel Oil	447	6,485	3,848	342	25	11,147	311	12,993	30,588
Less than 0.31 percent sulfur	161	0	794	97	13	1,065	87	1,129	2,369
0.31 to 1.00 percent sulfur	138	1,562	514	182	12	2,408	49	943	6,747
Greater than 1.00 percent sulfur	148	4,923	2,540	63	0	7,674	175	10,921	21,472
Naphtha for Petrochemical Feedstock Use	110	3,292	109	0	1	3,512	0	60	4,700
Other Oils for Petrochemical Feedstock Use	180	5,249	3,285	0	0	8,714	9	106	9,465
Special Naphthas	93	808	46	108	0	1,055	0	91	1,814
Lubricants	27	2,170	789	487	0	3,473	-32	582	5,422
Naphthenic	27	567	0	350	0	944	0	216	1,253
Paraffinic	0	1,603	789	137	0	2,529	-32	366	4,169
Waxes	8	197	85	76	0	366	38	103	644
Petroleum Coke	356	3,606	3,709	129	21	7,821	374	3,835	17,165
Marketable	52	1,621	2,741	83	0	4,497	168	2,784	10,120
Catalyst	304	1,985	968	46	21	3,324	206	1,051	7,045
Asphalt and Road Oil	557	1,103	1,518	990	102	4,270	1,346	2,459	19,419
Still Gas	732	5,962	3,776	215	102	10,787	686	4,608	23,023
Miscellaneous Products	37	565	481	0	0	1,083	65	115	2,019
Fuel Use	1	0	8	0	0	9	0	0	18
Nonfuel Use	36	565	473	0	0	1,074	65	115	2,001
Total	**18,583**	**117,604**	**83,941**	**6,307**	**2,724**	**229,159**	**16,526**	**89,554**	**496,116**
Processing Gain(-) or Loss(+)[a]	-613	-4,508	-3,316	-8	-63	-8,508	-311	-3,977	-18,968

[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, July 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**13,651**	**720**	**14,371**	**9,151**	**2,278**	**3,067**	**14,496**
Petroleum Products	**45,145**	**2,928**	**48,073**	**40,556**	**7,291**	**15,942**	**63,789**
Pentanes Plus	14	0	14	136	0	193	329
Liquefied Petroleum Gases	1,057	14	1,071	3,072	165	538	3,775
Ethane/Ethylene	16	0	16	1	0	0	1
Propane/Propylene	526	4	530	1,863	38	69	1,970
Normal Butane/Butylene	472	8	480	919	56	354	1,329
Isobutane	43	2	45	289	71	115	475
Other Hydrocarbons and Alcohol	183	0	183	216	5	42	263
Unfinished Oils	14,223	973	15,196	11,376	468	4,906	16,750
Naphthas and Lighter	4,417	332	4,749	2,902	184	1,457	4,543
Kerosene and Light Gas Oils	1,877	138	2,015	1,187	58	178	1,423
Heavy Gas Oils	6,997	328	7,325	3,739	224	2,060	6,023
Residuum	932	175	1,107	3,548	2	1,211	4,761
Motor Gasoline Blending Components	4,676	131	4,807	4,698	916	1,806	7,420
Aviation Gasoline Blending Components	0	0	0	24	0	38	62
Finished Motor Gasoline	8,314	337	8,651	5,820	954	2,978	9,752
Leaded	40	24	64	101	157	564	822
Unleaded	8,274	313	8,587	5,719	797	2,414	8,930
Finished Aviation Gasoline	12	0	12	67	38	20	125
Jet Fuel	2,366	87	2,453	1,578	253	608	2,439
Naphtha-Type	153	87	240	229	32	136	397
Kerosene-Type	2,213	0	2,213	1,349	221	472	2,042
Kerosene	185	49	234	517	99	209	825
Distillate Fuel Oil	7,906	295	8,201	5,090	1,640	2,162	8,892
Residual Fuel Oil	2,544	96	2,640	1,882	279	157	2,318
Less than 0.31 percent sulfur	69	75	144	45	0	0	45
0.31 to 1.00 percent sulfur	1,916	21	1,937	299	0	77	376
Greater than 1.00 percent sulfur	559	0	559	1,538	279	80	1,897
Naphtha for Petrochemical Feedstock Use	278	0	278	204	0	88	292
Other Oils for Petrochemical Feedstock Use	3	0	3	0	0	32	32
Special Naphthas	61	38	99	154	0	197	351
Lubricants	388	331	719	976	0	0	976
Waxes	0	52	52	100	0	22	122
Petroleum Coke (Marketable)	834	0	834	914	874	431	2,219
Asphalt and Road Oil	1,883	485	2,368	3,560	1,597	1,498	6,655
Miscellaneous Products	218	40	258	172	3	17	192
Total Stocks, All Oils	**58,796**	**3,648**	**62,444**	**49,707**	**9,569**	**19,009**	**78,285**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, July 1990 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	1,408	29,673	17,531	1,203	332	50,147	2,232	28,472	109,718
Petroleum Products	11,541	82,394	50,683	5,284	1,263	151,165	10,914	63,266	337,207
Pentanes Plus	275	178	102	12	19	586	3	27	959
Liquefied Petroleum Gases	2,504	3,783	4,543	73	59	10,962	353	1,008	17,169
Ethane/Ethylene	74	673	0	0	0	747	0	0	764
Propane/Propylene	1,272	1,335	794	6	5	3,412	112	83	6,107
Normal Butane/Butylene	840	1,011	3,113	56	48	5,068	169	604	7,650
Isobutane	318	764	636	11	6	1,735	72	321	2,648
Other Hydrocarbons and Alcohol	47	283	137	1	49	517	70	309	1,342
Unfinished Oils	2,852	28,489	19,596	848	266	52,051	2,055	26,377	112,429
Naphthas and Lighter	944	6,821	5,115	216	23	13,119	604	4,333	27,348
Kerosene and Light Gas Oils	337	6,655	2,595	81	7	9,675	405	3,956	17,474
Heavy Gas Oils	895	9,714	7,839	499	236	19,183	640	13,722	46,893
Residuum	676	5,299	4,047	52	0	10,074	406	4,366	20,714
Motor Gasoline Blending Components	1,120	8,851	5,569	133	199	15,872	1,698	7,051	36,848
Aviation Gasoline Blending Components	0	0	77	0	0	77	0	3	142
Finished Motor Gasoline	1,522	12,320	4,757	812	135	19,546	1,661	7,759	47,369
Leaded	191	123	62	1	42	419	635	1,671	3,611
Unleaded	1,331	12,197	4,695	811	93	19,127	1,026	6,088	43,758
Finished Aviation Gasoline	102	284	117	0	0	503	32	132	804
Jet Fuel	785	4,795	3,472	245	193	9,490	613	4,020	19,015
Naphtha-Type	294	789	443	210	117	1,853	182	848	3,520
Kerosene-Type	491	4,006	3,029	35	76	7,637	431	3,172	15,495
Kerosene	43	754	320	25	0	1,142	48	37	2,286
Distillate Fuel Oil	856	9,590	4,141	917	111	15,615	1,823	4,570	39,101
Residual Fuel Oil	405	3,892	2,942	163	30	7,432	527	6,042	18,959
Less than 0.31 percent sulfur	74	0	1,344	4	22	1,444	46	695	2,374
0.31 to 1.00 percent sulfur	103	828	339	85	8	1,363	250	594	4,520
Greater than 1.00 percent sulfur	228	3,064	1,259	74	0	4,625	231	4,753	12,065
Naphtha for Petrochemical Feedstock Use	22	872	222	0	8	1,124	0	119	1,813
Other Oils for Petrochemical Feedstock Use	143	1,722	383	0	0	2,248	2	113	2,398
Special Naphthas	105	1,047	19	101	0	1,272	7	112	1,841
Lubricants	4	3,674	1,037	474	0	5,189	65	906	7,855
Waxes	9	221	174	29	0	433	92	231	930
Petroleum Coke (Marketable)	18	449	1,908	326	0	2,701	26	1,747	7,527
Asphalt and Road Oil	698	885	815	1,125	194	3,717	1,825	2,573	17,138
Miscellaneous Products	31	305	352	0	0	688	14	130	1,282
Total Stocks, All Oils	12,949	112,067	68,214	6,487	1,595	201,312	13,146	91,738	446,925

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] July 1990

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	3.4	1.5	3.3	4.0	2.4	2.4	3.5
Finished Motor Gasoline[b]	42.7	35.4	42.2	52.1	48.9	50.7	51.4
Finished Aviation Gasoline[c]	0.0	0.0	0.0	0.1	0.3	0.1	0.1
Naphtha-Type Jet Fuel	0.1	3.0	0.3	0.3	0.1	1.2	0.5
Kerosene-Type Jet Fuel	5.6	0.0	5.2	5.4	5.3	4.3	5.2
Kerosene	0.2	1.9	0.3	0.5	0.0	0.1	0.3
Distillate Fuel Oil	24.2	30.4	24.6	21.4	24.6	26.7	23.0
Residual Fuel Oil	8.7	2.7	8.3	2.4	2.9	0.8	2.1
Naphtha for Petrochemical Feedstock Use	1.1	0.0	1.0	0.9	0.0	0.2	0.6
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	0.9	0.0	0.2	0.6
Special Naphthas	0.1	1.1	0.2	0.4	0.0	1.4	0.6
Lubricants	0.8	7.1	1.2	0.9	0.0	1.0	0.8
Waxes	0.0	2.5	0.2	0.0	0.0	0.1	0.0
Petroleum Coke	2.9	0.8	2.7	3.7	4.4	3.6	3.7
Asphalt and Road Oil	9.6	7.7	9.4	6.3	12.0	5.0	6.6
Still Gas	4.4	5.0	4.5	4.9	3.3	4.6	4.7
Miscellaneous Products	0.5	1.1	0.6	0.6	0.4	0.2	0.5
Processing Gain(-) or Loss(+)[d]	-4.2	-0.2	-4.0	-4.7	-4.5	-2.6	-4.2

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	4.3	5.4	4.6	2.2	6.0	4.9	1.6	2.4	3.9
Finished Motor Gasoline[b]	50.0	44.7	42.8	25.6	50.0	44.0	47.8	43.3	45.4
Finished Aviation Gasoline[c]	0.9	0.1	0.2	0.0	0.0	0.2	0.3	0.2	0.2
Naphtha-Type Jet Fuel	4.2	0.8	0.6	2.8	11.1	1.1	2.2	0.6	0.8
Kerosene-Type Jet Fuel	6.5	8.6	12.3	2.3	2.5	9.5	4.8	12.7	8.5
Kerosene	0.3	1.2	0.4	0.2	0.0	0.8	0.3	0.1	0.5
Distillate Fuel Oil	22.2	16.7	20.8	28.2	22.8	19.0	27.1	15.5	20.1
Residual Fuel Oil	2.7	5.8	5.0	5.7	1.0	5.2	2.0	15.6	6.6
Naphtha for Petrochemical Feedstock Use	0.7	3.0	0.1	0.0	0.0	1.6	0.0	0.1	1.0
Other Oils for Petrochemical Feedstock Use	1.1	4.7	4.2	0.0	0.0	4.1	0.1	0.1	2.0
Special Naphthas	0.6	0.7	0.1	1.8	0.0	0.5	0.0	0.1	0.4
Lubricants	0.2	1.9	1.0	8.1	0.0	1.6	-0.2	0.7	1.2
Waxes	0.0	0.2	0.1	1.3	0.0	0.2	0.2	0.1	0.1
Petroleum Coke	2.2	3.2	4.8	2.1	0.9	3.7	2.4	4.6	3.7
Asphalt and Road Oil	3.4	1.0	2.0	16.4	4.2	2.0	8.6	3.0	4.2
Still Gas	4.4	5.3	4.9	3.6	4.2	5.0	4.4	5.5	5.0
Miscellaneous Products	0.2	0.5	0.6	0.0	0.0	0.5	0.4	0.1	0.4
Processing Gain(-) or Loss(+)[d]	-3.7	-4.0	-4.3	-0.1	-2.6	-4.0	-2.0	-4.8	-4.1

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, July 1990
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	2,905	3,900	8,735	15,540
Connecticut	0	440	57	497
Florida	144	615	1,150	1,909
Maine	51	0	757	808
Maryland	0	844	509	1,353
Massachusetts	145	0	1,494	1,639
New Hampshire	0	0	96	96
New Jersey	677	266	1,606	2,549
New York	1,298	1,735	2,045	5,078
North Carolina	0	0	174	174
Pennsylvania	563	0	149	712
South Carolina	27	0	166	193
Vermont	0	0	1	1
Virginia	0	0	531	531
PAD District III	370	20	174	564
Texas	370	20	174	564
PAD District IV	0	0	9	9
Idaho	0	0	9	9
PAD District V	483	0	0	483
California	211	0	0	211
Hawaii	272	0	0	272
U.S. Total	3,758	3,920	8,918	16,596

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, July 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	43,133	40,004	116,637	2,647	8,752	211,173	6,812
Natural Gas Liquids	618	1,566	2,478	158	101	4,921	159
Pentanes Plus	0	38	1	60	0	99	3
Liquefied Petroleum Gases	618	1,528	2,477	98	101	4,822	156
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	605	1,085	1,003	62	33	2,788	90
Normal Butane/Butylene	2	437	910	14	28	1,391	45
Isobutane	11	6	564	22	40	643	21
Other Liquids	5,359	0	7,584	0	153	13,096	422
Unfinished Oils[a]	3,648	0	7,286	0	0	10,934	353
Naphthas and Lighter	101	0	1,836	0	0	1,937	62
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	3,208	0	1,701	0	0	4,909	158
Residuum	339	0	3,749	0	0	4,088	132
Motor Gasoline Blending Components	1,711	0	298	0	153	2,162	70
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	35,722	608	7,910	175	2,064	46,479	1,499
Finished Motor Gasoline	10,000	173	338	57	970	11,538	372
Leaded	0	0	0	16	0	16	1
Unleaded	10,000	173	338	41	970	11,522	372
Finished Aviation Gasoline	3	0	0	0	5	8	(s)
Jet Fuel	1,832	49	472	0	279	2,632	85
Naphtha-Type	0	49	0	0	4	53	2
Kerosene-Type	1,832	0	472	0	275	2,579	83
Bonded Aircraft Fuel	856	0	314	0	226	1,396	45
Other	976	0	158	0	49	1,183	38
Kerosene	23	0	0	0	0	23	1
Distillate Fuel Oil	6,516	225	0	109	241	7,091	229
Bonded Ship Bunkers	119	0	0	3	0	122	4
Other	6,397	225	0	106	241	6,969	225
Residual Fuel Oil	15,540	0	564	9	483	16,596	535
Bonded Ship Bunkers	0	0	0	0	0	0	0
Other	15,540	0	564	9	483	16,596	535
Naphtha for Petrochemical Feedstock Use	331	36	1,674	0	30	2,071	67
Other Oils for Petrochemical Feedstock Use	0	0	4,648	0	0	4,648	150
Special Naphthas	10	40	64	0	2	116	4
Lubricants	338	28	0	0	0	366	12
Waxes	28	1	2	0	1	32	1
Petroleum Coke	0	0	107	0	51	158	5
Asphalt and Road Oil	1,046	49	40	0	2	1,137	37
Miscellaneous Products	55	7	1	0	0	63	2
Total	84,832	42,178	134,609	2,980	11,070	275,669	8,893

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-July 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	270,750	247,060	733,288	15,417	55,129	1,321,644	6,234
Natural Gas Liquids	8,837	15,901	14,020	1,698	999	41,455	196
Pentanes Plus	620	233	276	607	0	1,736	8
Liquefied Petroleum Gases	8,217	15,668	13,744	1,091	999	39,719	187
Ethane/Ethylene	0	0	886	0	0	886	4
Propane/Propylene	7,724	11,835	5,622	717	599	26,497	125
Normal Butane/Butylene	444	3,263	5,173	281	155	9,316	44
Isobutane	49	570	2,063	93	245	3,020	14
Other Liquids	36,440	96	60,925	5	1,115	98,581	465
Unfinished Oils[a]	23,301	0	58,663	5	634	82,603	390
Naphthas and Lighter	2,077	0	15,452	5	0	17,534	83
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	19,950	0	15,997	0	634	36,581	173
Residuum	1,274	0	27,214	0	0	28,488	134
Motor Gasoline Blending Components	13,139	96	2,262	0	481	15,978	75
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	269,520	4,046	54,616	705	11,188	340,075	1,604
Finished Motor Gasoline	71,340	1,047	5,172	276	3,467	81,302	384
Leaded	0	0	25	34	117	176	1
Unleaded	71,340	1,047	5,147	242	3,350	81,126	383
Finished Aviation Gasoline	9	0	0	0	24	33	(s)
Jet Fuel	18,244	366	5,359	0	1,328	25,297	119
Naphtha-Type	0	336	0	0	15	351	2
Kerosene-Type	18,244	30	5,359	0	1,313	24,946	118
Bonded Aircraft Fuel	5,851	30	4,556	0	1,005	11,442	54
Other	12,393	0	803	0	308	13,504	64
Kerosene	947	0	442	0	0	1,389	7
Distillate Fuel Oil	61,896	1,278	440	370	710	64,694	305
Bonded Ship Bunkers	119	0	0	8	0	127	1
Other	61,777	1,278	440	362	710	64,567	305
Residual Fuel Oil	107,108	485	5,720	59	5,008	118,380	558
Bonded Ship Bunkers	226	0	0	0	0	226	1
Other	106,882	485	5,720	59	5,008	118,154	557
Naphtha for Petrochemical Feedstock Use	1,960	314	15,024	0	262	17,560	83
Other Oils for Petrochemical Feedstock Use	0	0	20,240	0	0	20,240	95
Special Naphthas	111	257	1,648	0	50	2,066	10
Lubricants	1,712	167	56	0	70	2,005	9
Waxes	160	39	12	0	15	226	1
Petroleum Coke	0	0	273	0	242	515	2
Asphalt and Road Oil	5,690	56	228	0	12	5,986	28
Miscellaneous Products	343	37	2	0	0	382	2
Total	585,547	267,103	862,849	17,825	68,431	1,801,755	8,499

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**76,807**	**530**	**3,196**	**0**	**2,047**	**0**	**0**	**1,051**	**20**	**112**	**1,183**
Algeria	2,165	530	996	0	0	0	0	1,051	20	112	1,183
Iraq	34,705	0	0	0	0	0	0	0	0	0	0
Kuwait	1,013	0	307	0	0	0	0	0	0	0	0
Saudi Arabia	38,509	0	1,893	0	2,047	0	0	0	0	0	0
United Arab Emirates	415	0	0	0	0	0	0	0	0	0	0
Other OPEC	**53,905**	**211**	**951**	**238**	**2,498**	**1,136**	**2,910**	**355**	**0**	**1,798**	**2,153**
Ecuador	1,340	0	0	0	0	0	131	0	0	379	379
Gabon	2,151	0	0	0	0	0	0	0	0	0	0
Indonesia	4,235	0	0	0	0	0	0	211	0	0	211
Nigeria	25,578	0	0	0	0	0	0	144	0	0	144
Venezuela	20,601	211	951	238	2,498	1,136	2,779	0	0	1,419	1,419
Non OPEC	**80,461**	**4,081**	**6,787**	**1,924**	**6,993**	**1,496**	**4,181**	**2,352**	**3,900**	**7,008**	**13,260**
Angola	9,395	0	0	0	0	0	0	0	0	0	0
Argentina	313	0	207	32	219	0	0	196	153	0	349
Australia	3,143	749	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	676	114	790
Belgium	0	0	273	660	251	0	0	0	0	0	0
Benin	553	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	1,155	0	0	708	384	0	1,092
Brunei	935	0	0	0	0	0	0	0	0	0	0
Cameroon	485	0	0	0	0	0	0	0	0	0	0
Canada	20,423	2,345	27	53	1,209	339	1,352	0	0	948	948
China, People's Republic of	3,773	0	0	153	161	0	0	0	0	0	0
Colombia	3,429	0	0	0	0	0	0	327	253	1,231	1,811
Congo	1,104	0	0	0	0	0	0	0	0	0	0
Egypt	703	0	241	0	0	0	0	0	0	0	0
France	0	0	0	0	226	0	0	0	269	0	269
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	300	0	0	0	0
India	0	0	238	0	0	0	0	0	0	0	0
Italy	345	0	635	272	0	0	0	0	310	171	481
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Malaysia	613	0	0	0	0	0	0	0	0	0	0
Mexico	20,169	987	0	0	0	260	110	0	0	0	0
Netherlands	0	0	1,026	80	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	0	0	879	879
Norway	3,994	0	0	0	0	0	0	0	0	0	0
Oman	2,518	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	119	956	1,075
Portugal	0	0	0	16	211	0	0	0	0	0	0
Puerto Rico	0	0	0	405	0	0	0	0	0	0	0
Romania	0	0	0	0	324	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	272	0	0	272
Spain	0	0	586	0	1,540	0	0	0	388	84	472
Sweden	0	0	0	0	0	0	0	0	0	0	0
Thailand	511	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,257	0	0	0	54	0	0	0	333	677	1,010
United Kingdom	5,132	0	214	0	246	0	225	0	712	0	712
U.S.S.R.	0	0	1,199	0	0	0	0	553	85	698	1,336
Virgin Islands	0	0	2,137	253	1,397	897	1,982	27	50	1,076	1,153
Yugoslavia	0	0	0	0	0	0	212	0	0	0	0
Zaire	666	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	269	168	174	611
Total	**211,173**	**4,822**	**10,934**	**2,162**	**11,538**	**2,632**	**7,091**	**3,758**	**3,920**	**8,918**	**16,596**

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] July 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	29	0	4,648	0	0	0	11,633	88,440	2,853
Algeria	0	29	0	4,648	0	0	0	7,386	9,551	308
Iraq	0	0	0	0	0	0	0	0	34,705	1,120
Kuwait	0	0	0	0	0	0	0	307	1,320	43
Saudi Arabia	0	0	0	0	0	0	0	3,940	42,449	1,369
United Arab Emirates	0	0	0	0	0	0	0	0	415	13
Other OPEC	0	0	389	0	0	741	0	11,227	65,132	2,101
Ecuador	0	0	0	0	0	0	0	510	1,850	60
Gabon	0	0	0	0	0	0	0	0	2,151	69
Indonesia	0	0	0	0	0	0	0	211	4,446	143
Nigeria	0	0	0	0	0	0	0	144	25,722	830
Venezuela	0	0	389	0	0	741	0	10,362	30,963	999
Non OPEC	23	87	1,682	0	366	396	360	41,636	122,097	3,939
Angola	0	0	0	0	0	0	0	0	9,395	303
Argentina	0	14	0	0	0	0	107	928	1,241	40
Australia	0	0	0	0	0	0	0	749	3,892	126
Bahama Islands	0	0	0	0	0	0	0	790	790	25
Belgium	0	0	0	0	0	0	1	1,185	1,185	38
Benin	0	0	0	0	0	0	0	0	553	18
Brazil	0	21	0	0	0	0	1	2,273	2,273	73
Brunei	0	0	0	0	0	0	0	0	935	30
Cameroon	0	0	0	0	0	0	0	0	485	16
Canada	23	52	42	0	69	272	177	6,908	27,331	882
China, People's Republic of	0	0	0	0	0	0	0	314	4,087	132
Colombia	0	0	0	0	0	0	2	1,813	5,242	169
Congo	0	0	0	0	0	0	0	0	1,104	36
Egypt	0	0	0	0	0	0	0	241	944	30
France	0	0	169	0	0	0	0	664	664	21
Germany, FR (W)	0	0	0	0	0	0	7	7	7	(s)
Greece	0	0	0	0	0	0	0	300	300	10
India	0	0	633	0	0	0	0	871	871	28
Italy	0	0	0	0	0	0	6	1,394	1,739	56
Japan	0	0	0	0	0	0	1	1	1	(s)
Korea, Republic of	0	0	30	0	0	0	0	30	30	1
Malaysia	0	0	0	0	0	0	0	0	613	20
Mexico	0	0	0	0	0	6	2	1,365	21,534	695
Netherlands	0	0	20	0	0	0	0	1,126	1,126	36
Netherlands Antilles	0	0	0	0	0	58	0	937	937	30
Norway	0	0	0	0	0	0	0	0	3,994	129
Oman	0	0	0	0	0	0	0	0	2,518	81
Peru	0	0	0	0	0	0	0	1,075	1,075	35
Portugal	0	0	0	0	0	0	0	227	227	7
Puerto Rico	0	0	345	0	285	0	55	1,090	1,090	35
Romania	0	0	0	0	0	0	0	324	324	10
Singapore	0	0	0	0	0	0	0	272	272	9
Spain	0	0	100	0	12	60	0	2,770	2,770	89
Sweden	0	0	22	0	0	0	0	22	22	1
Thailand	0	0	0	0	0	0	0	0	511	16
Trinidad and Tobago	0	0	0	0	0	0	0	1,064	3,321	107
United Kingdom	0	0	0	0	0	0	0	1,397	6,529	211
U.S.S.R.	0	0	321	0	0	0	0	2,856	2,856	92
Virgin Islands	0	0	0	0	0	0	0	7,819	7,819	252
Yugoslavia	0	0	0	0	0	0	0	212	212	7
Zaire	0	0	0	0	0	0	0	0	666	21
Other	0	0	0	0	0	0	1	612	612	20
Total	23	116	2,071	4,648	366	1,137	360	64,496	275,669	8,893

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**8,841**	**0**	**339**	**0**	**1,522**	**0**	**0**	**1,051**	**0**	**112**	**1,163**
Algeria	0	0	339	0	0	0	0	1,051	0	112	1,163
Iraq	2,828	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	6,013	0	0	0	1,522	0	0	0	0	0	0
Other OPEC	**17,389**	**0**	**0**	**0**	**2,258**	**856**	**2,910**	**144**	**0**	**1,798**	**1,942**
Ecuador	1,022	0	0	0	0	0	131	0	0	379	379
Nigeria	11,812	0	0	0	0	0	0	144	0	0	144
Venezuela	4,555	0	0	0	2,258	856	2,779	0	0	1,419	1,419
Non OPEC	**16,903**	**618**	**3,309**	**1,711**	**6,220**	**976**	**3,606**	**1,710**	**3,900**	**6,825**	**12,435**
Angola	5,973	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	207	0	0	0	0	196	153	0	349
Australia	811	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	676	114	790
Belgium	0	0	273	660	251	0	0	0	0	0	0
Brazil	0	0	0	0	1,155	0	0	708	384	0	1,092
Brunei	568	0	0	0	0	0	0	0	0	0	0
Canada	1,727	618	0	53	914	237	777	0	0	939	939
Colombia	0	0	0	0	0	0	0	327	253	1,231	1,811
Congo	882	0	0	0	0	0	0	0	0	0	0
Egypt	703	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	226	0	0	0	269	0	269
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	300	0	0	0	0
Italy	345	0	474	244	0	0	0	0	310	171	481
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,424	0	0	0	0	0	110	0	0	0	0
Netherlands	0	0	173	80	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	0	0	879	879
Norway	3,470	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	119	956	1,075
Portugal	0	0	0	16	211	0	0	0	0	0	0
Puerto Rico	0	0	0	405	0	0	0	0	0	0	0
Romania	0	0	0	0	324	0	0	0	0	0	0
Spain	0	0	415	0	1,540	0	0	0	388	84	472
Trinidad and Tobago	0	0	0	0	54	0	0	0	333	677	1,010
United Kingdom	0	0	0	0	246	0	225	0	712	0	712
U.S.S.R.	0	0	0	0	0	0	0	183	85	698	966
Virgin Islands	0	0	1,767	253	1,299	739	1,982	27	50	1,076	1,153
Yugoslavia	0	0	0	0	0	0	212	0	0	0	0
Other	0	0	0	0	0	0	0	269	168	0	437
Total	**43,133**	**618**	**3,648**	**1,711**	**10,000**	**1,832**	**6,516**	**2,905**	**3,900**	**8,735**	**15,540**

See footnotes at end of table.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	3,024	11,865	383
Algeria	0	0	0	0	0	0	0	1,502	1,502	48
Iraq	0	0	0	0	0	0	0	0	2,828	91
Saudi Arabia	0	0	0	0	0	0	0	1,522	7,535	243
Other OPEC	0	0	0	0	0	741	0	8,707	26,096	842
Ecuador	0	0	0	0	0	0	0	510	1,532	49
Nigeria	0	0	0	0	0	0	0	144	11,956	386
Venezuela	0	0	0	0	0	741	0	8,053	12,608	407
Non OPEC	23	10	331	0	338	305	86	29,968	46,871	1,512
Angola	0	0	0	0	0	0	0	0	5,973	193
Argentina	0	0	0	0	0	0	0	556	556	18
Australia	0	0	0	0	0	0	0	0	811	26
Bahama Islands	0	0	0	0	0	0	0	790	790	25
Belgium	0	0	0	0	0	0	0	1,184	1,184	38
Brazil	0	0	0	0	0	0	1	2,248	2,248	73
Brunei	0	0	0	0	0	0	0	0	568	18
Canada	23	10	6	0	41	221	15	3,854	5,581	180
Colombia	0	0	0	0	0	0	0	1,811	1,811	58
Congo	0	0	0	0	0	0	0	0	882	28
Egypt	0	0	0	0	0	0	0	0	703	23
France	0	0	0	0	0	0	0	495	495	16
Germany, FR (W)	0	0	0	0	0	0	7	7	7	(s)
Greece	0	0	0	0	0	0	0	300	300	10
Italy	0	0	0	0	0	0	6	1,205	1,550	50
Japan	0	0	0	0	0	0	1	1	1	(s)
Mexico	0	0	0	0	0	0	0	110	2,534	82
Netherlands	0	0	0	0	0	0	0	253	253	8
Netherlands Antilles	0	0	0	0	0	24	0	903	903	29
Norway	0	0	0	0	0	0	0	0	3,470	112
Peru	0	0	0	0	0	0	0	1,075	1,075	35
Portugal	0	0	0	0	0	0	0	227	227	7
Puerto Rico	0	0	325	0	285	0	55	1,070	1,070	35
Romania	0	0	0	0	0	0	0	324	324	10
Spain	0	0	0	0	12	60	0	2,499	2,499	81
Trinidad and Tobago	0	0	0	0	0	0	0	1,064	1,064	34
United Kingdom	0	0	0	0	0	0	0	1,183	1,183	38
U.S.S.R.	0	0	0	0	0	0	0	966	966	31
Virgin Islands	0	0	0	0	0	0	0	7,193	7,193	232
Yugoslavia	0	0	0	0	0	0	0	212	212	7
Other	0	0	0	0	0	0	1	438	438	14
Total	23	10	331	0	338	1,046	86	41,699	84,832	2,737

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**11,326**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	969	0	0	0	0	0	0	0	0	0	0
Iraq	5,584	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,773	0	0	0	0	0	0	0	0	0	0
Other OPEC	**9,150**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	318	0	0	0	0	0	0	0	0	0	0
Indonesia	465	0	0	0	0	0	0	0	0	0	0
Nigeria	4,897	0	0	0	0	0	0	0	0	0	0
Venezuela	3,470	0	0	0	0	0	0	0	0	0	0
Non OPEC	**19,528**	**1,528**	**0**	**0**	**173**	**49**	**225**	**0**	**0**	**0**	**0**
Canada	15,938	1,528	0	0	173	49	225	0	0	0	0
Mexico	1,892	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	472	0	0	0	0	0	0	0	0	0	0
United Kingdom	1,082	0	0	0	0	0	0	0	0	0	0
Zaire	144	0	0	0	0	0	0	0	0	0	0
Total	**40,004**	**1,528**	**0**	**0**	**173**	**49**	**225**	**0**	**0**	**0**	**0**

See footnotes at end of table.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	0	11,326	365
Algeria	0	0	0	0	0	0	0	0	969	31
Iraq	0	0	0	0	0	0	0	0	5,584	180
Saudi Arabia	0	0	0	0	0	0	0	0	4,773	154
Other OPEC	0	0	0	0	0	0	0	0	9,150	295
Ecuador	0	0	0	0	0	0	0	0	318	10
Indonesia	0	0	0	0	0	0	0	0	465	15
Nigeria	0	0	0	0	0	0	0	0	4,897	158
Venezuela	0	0	0	0	0	0	0	0	3,470	112
Non OPEC	0	40	36	0	28	49	46	2,174	21,702	700
Canada	0	40	36	0	28	49	46	2,174	18,112	584
Mexico	0	0	0	0	0	0	0	0	1,892	61
Trinidad and Tobago	0	0	0	0	0	0	0	0	472	15
United Kingdom	0	0	0	0	0	0	0	0	1,082	35
Zaire	0	0	0	0	0	0	0	0	144	5
Total	0	40	36	0	28	49	46	2,174	42,178	1,361

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	55,271	530	2,857	0	0	0	0	0	20	0	20
Algeria	1,196	530	657	0	0	0	0	0	20	0	20
Iraq	25,993	0	0	0	0	0	0	0	0	0	0
Kuwait	1,013	0	307	0	0	0	0	0	0	0	0
Saudi Arabia	26,654	0	1,893	0	0	0	0	0	0	0	0
United Arab Emirates	415	0	0	0	0	0	0	0	0	0	0
Other OPEC	23,670	211	951	238	240	54	0	0	0	0	0
Gabon	2,151	0	0	0	0	0	0	0	0	0	0
Indonesia	74	0	0	0	0	0	0	0	0	0	0
Nigeria	8,869	0	0	0	0	0	0	0	0	0	0
Venezuela	12,576	211	951	238	240	54	0	0	0	0	0
Non OPEC	37,696	1,736	3,478	60	98	418	0	370	0	174	544
Angola	3,422	0	0	0	0	0	0	0	0	0	0
Argentina	313	0	0	32	0	0	0	0	0	0	0
Australia	648	749	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0
Benin	553	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	0	0	0	0	0	0	0
Cameroon	485	0	0	0	0	0	0	0	0	0	0
Canada	0	0	27	0	0	0	0	0	0	0	0
China, People's Republic of	3,773	0	0	0	0	0	0	0	0	0	0
Colombia	3,429	0	0	0	0	0	0	0	0	0	0
Congo	222	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	241	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0
India	0	0	238	0	0	0	0	0	0	0	0
Italy	0	0	161	28	0	0	0	0	0	0	0
Malaysia	613	0	0	0	0	0	0	0	0	0	0
Mexico	14,839	987	0	0	0	260	0	0	0	0	0
Netherlands	0	0	853	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	0
Norway	524	0	0	0	0	0	0	0	0	0	0
Oman	2,518	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	171	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,785	0	0	0	0	0	0	0	0	0	0
United Kingdom	4,050	0	214	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,199	0	0	0	0	370	0	0	370
Virgin Islands	0	0	370	0	98	158	0	0	0	0	0
Zaire	522	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	174	174
Total	116,637	2,477	7,286	298	338	472	0	370	20	174	564

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**29**	**0**	**4,648**	**0**	**0**	**0**	**8,084**	**63,355**	**2,044**
Algeria	0	29	0	4,648	0	0	0	5,884	7,080	228
Iraq	0	0	0	0	0	0	0	0	25,993	838
Kuwait	0	0	0	0	0	0	0	307	1,320	43
Saudi Arabia	0	0	0	0	0	0	0	1,893	28,547	921
United Arab Emirates	0	0	0	0	0	0	0	0	415	13
Other OPEC	**0**	**0**	**389**	**0**	**0**	**0**	**0**	**2,083**	**25,753**	**831**
Gabon	0	0	0	0	0	0	0	0	2,151	69
Indonesia	0	0	0	0	0	0	0	0	74	2
Nigeria	0	0	0	0	0	0	0	0	8,869	286
Venezuela	0	0	389	0	0	0	0	2,083	14,659	473
Non OPEC	**0**	**35**	**1,285**	**0**	**0**	**40**	**111**	**7,805**	**45,501**	**1,468**
Angola	0	0	0	0	0	0	0	0	3,422	110
Argentina	0	14	0	0	0	0	107	153	466	15
Australia	0	0	0	0	0	0	0	749	1,397	45
Belgium	0	0	0	0	0	0	1	1	1	(s)
Benin	0	0	0	0	0	0	0	0	553	18
Brazil	0	21	0	0	0	0	0	25	25	1
Cameroon	0	0	0	0	0	0	0	0	485	16
Canada	0	0	0	0	0	0	0	27	27	1
China, People's Republic of	0	0	0	0	0	0	0	0	3,773	122
Colombia	0	0	0	0	0	0	2	2	3,431	111
Congo	0	0	0	0	0	0	0	0	222	7
Egypt	0	0	0	0	0	0	0	241	241	8
France	0	0	169	0	0	0	0	169	169	5
India	0	0	633	0	0	0	0	871	871	28
Italy	0	0	0	0	0	0	0	189	189	6
Malaysia	0	0	0	0	0	0	0	0	613	20
Mexico	0	0	0	0	0	6	1	1,254	16,093	519
Netherlands	0	0	20	0	0	0	0	873	873	28
Netherlands Antilles	0	0	0	0	0	34	0	34	34	1
Norway	0	0	0	0	0	0	0	0	524	17
Oman	0	0	0	0	0	0	0	0	2,518	81
Puerto Rico	0	0	20	0	0	0	0	20	20	1
Spain	0	0	100	0	0	0	0	271	271	9
Sweden	0	0	22	0	0	0	0	22	22	1
Trinidad and Tobago	0	0	0	0	0	0	0	0	1,785	58
United Kingdom	0	0	0	0	0	0	0	214	4,264	138
U.S.S.R.	0	0	321	0	0	0	0	1,890	1,890	61
Virgin Islands	0	0	0	0	0	0	0	626	626	20
Zaire	0	0	0	0	0	0	0	0	522	17
Other	0	0	0	0	0	0	0	174	174	6
Total	**0**	**64**	**1,674**	**4,648**	**0**	**40**	**111**	**17,972**	**134,609**	**4,342**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District IV											
Non OPEC	2,647	98	0	0	57	0	109	0	0	9	9
Canada	2,647	98	0	0	57	0	109	0	0	9	9
Total	2,647	98	0	0	57	0	109	0	0	9	9
PAD District V											
Arab OPEC	1,369	0	0	0	525	0	0	0	0	0	0
Iraq	300	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	1,069	0	0	0	525	0	0	0	0	0	0
Other OPEC	3,696	0	0	0	0	226	0	211	0	0	211
Indonesia	3,696	0	0	0	0	0	0	211	0	0	211
Venezuela	0	0	0	0	0	226	0	0	0	0	0
Non OPEC	3,687	101	0	153	445	53	241	272	0	0	272
Argentina	0	0	0	0	219	0	0	0	0	0	0
Australia	1,684	0	0	0	0	0	0	0	0	0	0
Brunei	367	0	0	0	0	0	0	0	0	0	0
Canada	111	101	0	0	65	53	241	0	0	0	0
China, People's Republic of	0	0	0	153	161	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Mexico	1,014	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	272	0	0	272
Thailand	511	0	0	0	0	0	0	0	0	0	0
Total	8,752	101	0	153	970	279	241	483	0	0	483

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] July 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**333**	**2,980**	**96**
Canada	0	0	0	0	0	0	60	333	2,980	96
Total	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**333**	**2,980**	**96**
					PAD District V					
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**525**	**1,894**	**61**
Iraq	0	0	0	0	0	0	0	0	300	10
Saudi Arabia	0	0	0	0	0	0	0	525	1,594	51
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**437**	**4,133**	**133**
Indonesia	0	0	0	0	0	0	0	211	3,907	126
Venezuela	0	0	0	0	0	0	0	226	226	7
Non OPEC	**0**	**2**	**30**	**0**	**0**	**2**	**57**	**1,356**	**5,043**	**163**
Argentina	0	0	0	0	0	0	0	219	219	7
Australia	0	0	0	0	0	0	0	0	1,684	54
Brunei	0	0	0	0	0	0	0	0	367	12
Canada	0	2	0	0	0	2	56	520	631	20
China, People's Republic of	0	0	0	0	0	0	0	314	314	10
Korea, Republic of	0	0	30	0	0	0	0	30	30	1
Mexico	0	0	0	0	0	0	1	1	1,015	33
Singapore	0	0	0	0	0	0	0	272	272	9
Thailand	0	0	0	0	0	0	0	0	511	16
Total	**0**	**2**	**30**	**0**	**0**	**2**	**57**	**2,318**	**11,070**	**357**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	421,849	6,574	27,545	0	7,290	3,409	6,000	6,028	551	2,478	9,057
Algeria	13,759	5,864	7,709	0	0	0	4,560	6,028	316	354	6,698
Iraq	146,397	0	1,432	0	0	0	188	0	0	0	0
Kuwait	21,536	0	614	0	0	35	260	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	235,564	710	16,040	0	7,290	3,374	992	0	235	1,449	1,684
United Arab Emirates	3,300	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	373,225	1,189	6,860	1,754	15,572	7,613	24,949	4,940	1,016	15,445	21,401
Ecuador	8,540	0	0	0	0	0	131	0	0	2,217	2,217
Gabon	13,306	0	0	0	0	0	0	0	0	105	105
Indonesia	25,310	0	883	0	0	0	0	2,442	0	0	2,442
Nigeria	188,048	0	0	0	184	0	0	1,828	1,016	44	2,888
Venezuela	138,021	1,189	5,977	1,754	15,388	7,613	24,818	670	0	13,079	13,749
Non OPEC	526,570	31,956	48,198	14,224	58,440	14,275	33,745	14,781	27,458	45,683	87,922
Angola	59,873	0	0	0	0	0	0	0	0	0	0
Argentina	1,798	0	1,063	487	1,057	0	1,263	196	2,047	0	2,243
Australia	11,288	749	0	0	0	0	0	81	145	0	226
Bahama Islands	0	0	0	0	0	0	208	0	2,861	6,723	9,584
Belgium	0	0	2,094	2,938	1,758	0	0	215	224	0	439
Benin	1,192	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	4,535	0	0	4,109	3,678	88	7,875
Brunei	2,248	0	0	0	0	0	0	0	0	0	0
Cameroon	3,338	0	0	0	0	0	0	0	941	329	1,270
Canada	133,243	22,714	3,131	191	11,082	2,339	11,357	181	1,107	4,553	5,841
China, People's Republic of	17,047	0	0	481	161	0	0	0	0	0	0
Colombia	30,034	0	481	0	0	0	0	327	1,135	7,984	9,446
Congo	5,855	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	4,941	0	1,968	0	0	0	0	0	172	0	172
France	0	20	200	276	6,118	296	777	0	1,568	212	1,780
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	607	551	847	587	0	0	587
Guatemala	633	0	0	0	0	0	0	0	0	0	0
India	210	0	3,988	0	0	0	0	0	0	0	0
Italy	669	27	4,627	567	8,232	258	185	0	1,128	522	1,650
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	6	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Malaysia	3,584	0	0	0	0	0	0	117	0	0	117
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	142,489	7,870	0	0	5	2,606	1,956	0	0	987	987
Netherlands	0	4	4,129	930	3,959	450	721	0	898	340	1,238
Netherlands Antilles	0	0	509	0	244	0	0	0	0	3,372	3,372
Norway	23,271	0	334	0	744	0	189	0	0	0	0
Oman	11,912	0	256	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	496	2,654	3,322
Portugal	0	16	0	42	910	0	0	0	716	0	716
Puerto Rico	0	0	1,380	2,337	0	0	0	0	0	0	0
Romania	0	0	0	2,925	866	187	625	0	0	0	0
Singapore	0	0	309	0	0	3	0	1,455	363	0	1,818
Spain	0	0	2,797	138	5,404	838	0	71	1,122	483	1,676
Sweden	0	0	381	0	0	0	0	0	460	0	460
Syria	218	0	0	0	0	0	0	0	0	622	622
Thailand	3,394	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	16,435	0	0	0	250	220	160	0	333	4,678	5,011
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	499	0	639	419	0	0	0	0	0	80	80
United Kingdom	41,157	550	1,833	468	2,768	56	954	0	1,590	189	1,779
U.S.S.R.	0	0	1,876	0	124	0	1,856	553	85	1,900	2,538
Virgin Islands	0	0	14,505	1,773	9,592	6,320	11,923	5,718	4,005	9,252	18,975
Yemen (Sana)	6,993	0	671	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	212	0	0	0	0
Zaire	4,249	0	0	0	0	0	0	0	0	0	0
Other	0	0	913	0	24	111	0	410	1,454	269	2,133
Total	1,321,644	39,719	82,603	15,978	81,302	25,297	64,694	25,749	29,025	63,606	118,380

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-July 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	138	29	5,997	19,978	0	0	0	86,017	507,866	2,396
Algeria	0	29	5,738	19,978	0	0	0	50,576	64,335	303
Iraq	0	0	0	0	0	0	0	1,620	148,017	698
Kuwait	0	0	0	0	0	0	0	909	22,445	106
Qatar	0	0	0	0	0	0	0	0	1,293	6
Saudi Arabia	138	0	259	0	0	0	0	30,487	266,051	1,255
United Arab Emirates	0	0	0	0	0	0	0	2,425	5,725	27
Other OPEC	221	129	1,691	0	0	4,485	28	85,892	459,117	2,166
Ecuador	0	0	0	0	0	0	0	2,348	10,888	51
Gabon	0	0	0	0	0	0	0	105	13,411	63
Indonesia	0	0	716	0	0	0	28	4,069	29,379	139
Nigeria	0	0	0	0	0	0	0	3,072	191,120	902
Venezuela	221	129	975	0	0	4,485	0	76,298	214,319	1,011
Non OPEC	1,030	1,908	9,872	262	2,005	1,501	2,864	308,202	834,772	3,938
Angola	0	0	0	0	0	0	0	0	59,873	282
Argentina	0	127	15	0	0	0	267	6,522	8,320	39
Australia	0	0	0	0	0	0	0	975	12,263	58
Bahama Islands	0	0	0	0	0	0	0	9,792	9,792	46
Belgium	0	0	0	0	0	0	2	7,231	7,231	34
Benin	0	0	0	0	0	0	0	0	1,192	6
Brazil	0	23	0	0	18	0	7	12,462	12,462	59
Brunei	0	0	0	0	0	0	0	0	2,248	11
Cameroon	0	0	0	0	0	0	0	1,270	4,608	22
Canada	164	892	683	0	412	676	1,251	60,733	193,976	915
China, People's Republic of	0	0	0	0	95	0	15	752	17,799	84
Colombia	0	0	0	0	0	0	5	9,932	39,966	189
Congo	0	0	0	0	0	0	0	982	6,837	32
Denmark	0	0	0	0	0	0	0	407	407	2
Egypt	0	0	705	0	0	0	4	2,849	7,790	37
France	0	0	340	0	0	0	0	9,807	9,807	46
Germany, DR (E)	0	0	0	0	0	0	0	560	560	3
Germany, FR (W)	0	0	0	0	0	0	56	56	56	(s)
Greece	0	0	235	0	0	0	0	3,079	3,079	15
Guatemala	0	0	0	0	0	0	0	0	633	3
India	0	0	2,995	0	0	0	0	6,983	7,193	34
Italy	0	8	21	262	0	0	11	15,848	16,517	78
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	75	0	31	0	59	175	175	1
Korea, Republic of	0	0	212	0	0	0	0	212	212	1
Malaysia	0	0	0	0	0	0	0	117	3,701	17
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	67	825	14,316	156,805	740
Netherlands	0	803	1,399	0	30	0	10	13,673	13,673	64
Netherlands Antilles	0	0	0	0	0	252	0	4,377	4,377	21
Norway	0	0	0	0	0	0	0	1,267	24,538	116
Oman	0	0	0	0	0	0	0	256	12,168	57
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	3,322	3,322	16
Portugal	0	28	0	0	22	0	0	1,734	1,734	8
Puerto Rico	0	0	1,577	0	1,385	0	339	7,018	7,018	33
Romania	0	0	0	0	0	0	0	4,603	4,603	22
Singapore	0	0	0	0	0	0	0	2,130	2,130	10
Spain	0	0	100	0	12	506	0	11,471	11,471	54
Sweden	0	0	246	0	0	0	0	1,087	1,087	5
Syria	0	0	0	0	0	0	0	622	840	4
Thailand	0	0	0	0	0	0	0	0	3,394	16
Trinidad and Tobago	0	22	0	0	0	0	0	5,663	22,098	104
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	1,138	1,637	8
United Kingdom	0	1	728	0	0	0	0	9,137	50,294	237
U.S.S.R.	160	0	321	0	0	0	0	6,875	6,875	32
Virgin Islands	706	0	220	0	0	0	0	64,014	64,014	302
Yemen (Sana)	0	0	0	0	0	0	0	671	7,664	36
Yugoslavia	0	0	0	0	0	0	0	212	212	1
Zaire	0	0	0	0	0	0	0	0	4,249	20
Other	0	0	0	0	0	0	13	3,194	3,194	15
Total	1,389	2,066	17,560	20,240	2,005	5,986	2,892	480,111	1,801,755	8,499

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	48,255	4,180	1,617	0	5,875	1,970	5,797	5,504	296	973	6,773
Algeria	419	3,470	1,617	0	0	0	4,560	5,504	296	112	5,912
Iraq	14,686	0	0	0	0	0	188	0	0	0	0
Kuwait	1,519	0	0	0	0	0	260	0	0	0	0
Saudi Arabia	31,631	710	0	0	5,875	1,970	789	0	0	861	861
Other OPEC	134,230	0	238	0	14,014	5,798	24,742	2,140	1,016	15,118	18,274
Ecuador	4,558	0	0	0	0	0	131	0	0	2,217	2,217
Gabon	7,014	0	0	0	0	0	0	0	0	105	105
Nigeria	96,264	0	0	0	184	0	0	1,828	1,016	44	2,888
Venezuela	26,394	0	238	0	13,830	5,798	24,611	312	0	12,752	13,064
Non OPEC	88,265	4,037	21,446	13,139	51,451	10,476	31,357	12,577	25,185	44,299	82,061
Angola	23,823	0	0	0	0	0	0	0	0	0	0
Argentina	387	0	723	455	838	0	1,263	196	2,047	0	2,243
Australia	811	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	208	0	2,861	6,442	9,303
Belgium	0	0	1,045	2,938	1,758	0	0	215	224	0	439
Benin	327	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	3,651	0	0	4,109	3,678	88	7,875
Brunei	568	0	0	0	0	0	0	0	0	0	0
Cameroon	1,678	0	0	0	0	0	0	0	941	329	1,270
Canada	12,771	3,851	601	95	8,863	1,890	8,999	0	681	4,291	4,972
China, People's Republic of	3,653	0	0	0	0	0	0	0	0	0	0
Colombia	2,398	0	0	0	0	0	0	327	892	7,984	9,203
Congo	882	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	4,941	0	724	0	0	0	0	0	172	0	172
France	0	0	200	276	5,618	296	777	0	1,568	212	1,780
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	607	379	847	587	0	0	587
India	0	0	498	0	0	0	0	0	0	0	0
Italy	669	0	2,113	449	7,783	258	185	0	592	522	1,114
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	16,021	0	0	0	0	451	1,926	0	0	596	596
Netherlands	0	0	1,256	814	3,423	450	721	0	898	340	1,238
Netherlands Antilles	0	0	0	0	244	0	0	0	0	3,372	3,372
Norway	10,205	0	0	0	744	0	189	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	496	2,654	3,322
Portugal	0	0	0	16	668	0	0	0	716	0	716
Puerto Rico	0	0	1,380	2,337	0	0	0	0	0	0	0
Romania	0	0	0	2,925	866	187	625	0	0	0	0
Spain	0	0	1,180	138	5,126	838	0	71	903	302	1,276
Sweden	0	0	0	0	0	0	0	0	460	0	460
Syria	0	0	0	0	0	0	0	0	0	622	622
Trinidad and Tobago	2,716	0	0	0	250	0	160	0	333	4,678	5,011
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	0	0	201	236	0	0	0	0	0	80	80
United Kingdom	2,453	186	528	468	2,768	56	954	0	1,590	189	1,779
U.S.S.R.	0	0	0	0	124	0	1,856	183	85	1,900	2,168
Virgin Islands	0	0	10,709	1,740	8,120	5,520	11,923	5,718	3,758	9,252	18,728
Yemen (Sana)	998	0	0	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	212	0	0	0	0
Zaire	2,964	0	0	0	0	0	0	0	0	0	0
Other	0	0	178	0	0	111	0	410	1,360	0	1,770
Total	270,750	8,217	23,301	13,139	71,340	18,244	61,896	20,221	26,497	60,390	107,108

See footnotes at end of table.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	138	0	0	0	0	0	0	26,350	74,605	352
Algeria	0	0	0	0	0	0	0	15,559	15,978	75
Iraq	0	0	0	0	0	0	0	188	14,874	70
Kuwait	0	0	0	0	0	0	0	260	1,779	8
Saudi Arabia	138	0	0	0	0	0	0	10,343	41,974	198
Other OPEC	221	0	0	0	0	4,358	0	67,645	201,875	952
Ecuador	0	0	0	0	0	0	0	2,348	6,906	33
Gabon	0	0	0	0	0	0	0	105	7,119	34
Nigeria	0	0	0	0	0	0	0	3,072	99,336	469
Venezuela	221	0	0	0	0	4,358	0	62,120	88,514	418
Non OPEC	588	111	1,960	0	1,712	1,332	1,132	220,802	309,067	1,458
Angola	0	0	0	0	0	0	0	0	23,823	112
Argentina	0	0	0	0	0	0	0	5,522	5,909	28
Australia	0	0	0	0	0	0	0	0	811	4
Bahama Islands	0	0	0	0	0	0	0	9,511	9,511	45
Belgium	0	0	0	0	0	0	0	6,180	6,180	29
Benin	0	0	0	0	0	0	0	0	327	2
Brazil	0	0	0	0	18	0	7	11,551	11,551	54
Brunei	0	0	0	0	0	0	0	0	568	3
Cameroon	0	0	0	0	0	0	0	1,270	2,948	14
Canada	164	71	129	0	245	608	88	30,576	43,347	204
China, People's Republic of	0	0	0	0	0	0	15	15	3,668	17
Colombia	0	0	0	0	0	0	0	9,203	11,601	55
Congo	0	0	0	0	0	0	0	982	1,864	9
Denmark	0	0	0	0	0	0	0	407	407	2
Egypt	0	0	227	0	0	0	1	1,124	6,065	29
France	0	0	9	0	0	0	0	8,956	8,956	42
Germany, DR (E)	0	0	0	0	0	0	0	560	560	3
Germany, FR (W)	0	0	0	0	0	0	37	37	37	(s)
Greece	0	0	0	0	0	0	0	2,672	2,672	13
India	0	0	0	0	0	0	0	498	498	2
Italy	0	8	0	0	0	0	11	11,921	12,590	59
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	14	0	0	0	6	24	24	(s)
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	0	620	3,593	19,614	93
Netherlands	0	0	0	0	30	0	0	7,932	7,932	37
Netherlands Antilles	0	0	0	0	0	218	0	3,834	3,834	18
Norway	0	0	0	0	0	0	0	933	11,138	53
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	3,322	3,322	16
Portugal	0	28	0	0	22	0	0	1,450	1,450	7
Puerto Rico	0	0	1,401	0	1,385	0	339	6,842	6,842	32
Romania	0	0	0	0	0	0	0	4,603	4,603	22
Spain	0	0	0	0	12	506	0	9,076	9,076	43
Sweden	0	0	0	0	0	0	0	460	460	2
Syria	0	0	0	0	0	0	0	622	622	3
Trinidad and Tobago	0	0	0	0	0	0	0	5,421	8,137	38
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	517	517	2
United Kingdom	0	0	0	0	0	0	0	6,739	9,192	43
U.S.S.R.	160	0	0	0	0	0	0	4,308	4,308	20
Virgin Islands	264	0	180	0	0	0	0	57,184	57,184	270
Yemen (Sana)	0	0	0	0	0	0	0	0	998	5
Yugoslavia	0	0	0	0	0	0	0	212	212	1
Zaire	0	0	0	0	0	0	0	0	2,964	14
Other	0	0	0	0	0	0	8	2,067	2,067	10
Total	947	111	1,960	0	1,712	5,690	1,132	314,797	585,547	2,762

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**48,816**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**
Algeria	2,855	0	0	0	0	0	0	0	0	0	0
Iraq	15,405	0	0	0	0	0	0	0	0	0	0
Kuwait	946	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	29,610	0	0	0	0	20	0	0	0	0	0
Other OPEC	**63,983**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	1,458	0	0	0	0	0	0	0	0	0	0
Indonesia	1,470	0	0	0	0	0	0	0	0	0	0
Nigeria	33,594	0	0	0	0	0	0	0	0	0	0
Venezuela	27,461	0	0	0	0	0	0	0	0	0	0
Non OPEC	**134,261**	**15,668**	**0**	**96**	**1,047**	**346**	**1,278**	**165**	**101**	**219**	**485**
Canada	100,778	15,668	0	96	1,047	336	1,278	165	101	219	485
Colombia	1,002	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	17,551	0	0	0	0	10	0	0	0	0	0
Norway	949	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	4,621	0	0	0	0	0	0	0	0	0	0
Turkey	499	0	0	0	0	0	0	0	0	0	0
United Kingdom	4,712	0	0	0	0	0	0	0	0	0	0
Yemen (Sana)	4,005	0	0	0	0	0	0	0	0	0	0
Zaire	144	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**247,060**	**15,668**	**0**	**96**	**1,047**	**366**	**1,278**	**165**	**101**	**219**	**485**

See footnotes at end of table.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	0	0	0	0	20	48,836	230
Algeria	0	0	0	0	0	0	0	0	2,855	13
Iraq	0	0	0	0	0	0	0	0	15,405	73
Kuwait	0	0	0	0	0	0	0	0	946	4
Saudi Arabia	0	0	0	0	0	0	0	20	29,630	140
Other OPEC	0	0	0	0	0	0	0	0	63,983	302
Ecuador	0	0	0	0	0	0	0	0	1,458	7
Indonesia	0	0	0	0	0	0	0	0	1,470	7
Nigeria	0	0	0	0	0	0	0	0	33,594	158
Venezuela	0	0	0	0	0	0	0	0	27,461	130
Non OPEC	0	257	314	0	167	56	309	20,023	154,284	728
Canada	0	257	314	0	167	56	290	19,994	120,772	570
Colombia	0	0	0	0	0	0	0	0	1,002	5
Germany, FR (W)	0	0	0	0	0	0	17	17	17	(s)
Mexico	0	0	0	0	0	0	0	10	17,561	83
Norway	0	0	0	0	0	0	0	0	949	4
Trinidad and Tobago	0	0	0	0	0	0	0	0	4,621	22
Turkey	0	0	0	0	0	0	0	0	499	2
United Kingdom	0	0	0	0	0	0	0	0	4,712	22
Yemen (Sana)	0	0	0	0	0	0	0	0	4,005	19
Zaire	0	0	0	0	0	0	0	0	144	1
Other	0	0	0	0	0	0	2	2	2	(s)
Total	0	257	314	0	167	56	309	20,043	267,103	1,260

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	320,489	2,394	25,928	0	0	1,202	203	524	255	1,505	2,284
Algeria	10,485	2,394	6,092	0	0	0	0	524	20	242	786
Iraq	115,662	0	1,432	0	0	0	0	0	0	0	0
Kuwait	18,548	0	614	0	0	0	0	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	172,216	0	16,040	0	0	1,202	203	0	235	588	823
United Arab Emirates	2,285	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	150,493	1,189	6,481	1,754	1,558	1,379	207	358	0	327	685
Ecuador	1,751	0	0	0	0	0	0	0	0	0	0
Gabon	6,292	0	0	0	0	0	0	0	0	0	0
Indonesia	1,907	0	742	0	0	0	0	0	0	0	0
Nigeria	58,190	0	0	0	0	0	0	0	0	0	0
Venezuela	82,353	1,189	5,739	1,754	1,558	1,379	207	358	0	327	685
Non OPEC	262,306	10,161	26,254	508	3,614	2,778	30	370	1,259	1,122	2,751
Angola	36,050	0	0	0	0	0	0	0	0	0	0
Argentina	1,411	0	156	32	0	0	0	0	0	0	0
Australia	648	749	0	0	0	0	0	0	0	281	281
Bahama Islands	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	1,049	0	0	0	0	0	0	0	0
Benin	865	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	570	0	0	0	0	0	0
Cameroon	1,660	0	0	0	0	0	0	0	0	0	0
Canada	2,603	1,105	2,525	0	0	0	0	0	257	0	257
China, People's Republic of	10,839	0	0	0	0	0	0	0	0	0	0
Colombia	26,634	0	481	0	0	0	0	0	0	0	0
Congo	4,973	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	1,244	0	0	0	0	0	0	0	0
France	0	20	0	0	500	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0	0
Guatemala	633	0	0	0	0	0	0	0	0	0	0
India	210	0	3,490	0	0	0	0	0	0	0	0
Italy	0	27	2,514	118	229	0	0	0	536	0	536
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	613	0	0	0	0	0	0	0	0	0	0
Mexico	105,714	7,870	0	0	5	1,978	30	0	0	391	391
Netherlands	0	4	2,873	116	536	0	0	0	0	0	0
Netherlands Antilles	0	0	509	0	0	0	0	0	0	0	0
Norway	12,117	0	334	0	0	0	0	0	0	0	0
Oman	11,412	0	256	0	0	0	0	0	0	0	0
Portugal	0	16	0	26	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	1,617	0	278	0	0	0	219	181	400
Sweden	0	0	381	0	0	0	0	0	0	0	0
Syria	218	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	9,098	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	438	183	0	0	0	0	0	0	0
United Kingdom	33,477	364	1,305	0	0	0	0	0	0	0	370
U.S.S.R.	0	0	1,876	0	0	0	0	370	247	0	247
Virgin Islands	0	0	3,796	33	1,472	800	0	0	0	0	0
Yemen (Sana)	1,990	0	671	0	0	0	0	0	0	0	0
Zaire	1,141	0	0	0	0	0	0	0	0	269	269
Other	0	0	735	0	24	0	0	0	0	0	0
Total	733,288	13,744	58,663	2,262	5,172	5,359	440	1,252	1,514	2,954	5,720

See footnotes at end of table.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	29	5,997	19,978	0	0	0	58,015	378,504	1,785
Algeria	0	29	5,738	19,978	0	0	0	35,017	45,502	215
Iraq	0	0	0	0	0	0	0	1,432	117,094	552
Kuwait	0	0	0	0	0	0	0	614	19,162	90
Qatar	0	0	0	0	0	0	0	0	1,293	6
Saudi Arabia	0	0	259	0	0	0	0	18,527	190,743	900
United Arab Emirates	0	0	0	0	0	0	0	2,425	4,710	22
Other OPEC	0	129	1,691	0	0	127	28	15,228	165,721	782
Ecuador	0	0	0	0	0	0	0	0	1,751	8
Gabon	0	0	0	0	0	0	0	0	6,292	30
Indonesia	0	0	716	0	0	0	28	1,486	3,393	16
Nigeria	0	0	0	0	0	0	0	0	58,190	274
Venezuela	0	129	975	0	0	127	0	13,742	96,095	453
Non OPEC	442	1,490	7,336	262	56	101	535	56,318	318,624	1,503
Angola	0	0	0	0	0	0	0	0	36,050	170
Argentina	0	127	15	0	0	0	267	597	2,008	9
Australia	0	0	0	0	0	0	0	749	1,397	7
Bahama Islands	0	0	0	0	0	0	0	281	281	1
Belgium	0	0	0	0	0	0	2	1,051	1,051	5
Benin	0	0	0	0	0	0	0	0	865	4
Brazil	0	23	0	0	0	0	0	597	597	3
Cameroon	0	0	0	0	0	0	0	0	1,660	8
Canada	0	514	240	0	0	0	0	4,641	7,244	34
China, People's Republic of	0	0	0	0	56	0	0	56	10,895	51
Colombia	0	0	0	0	0	0	5	486	27,120	128
Congo	0	0	0	0	0	0	0	0	4,973	23
Egypt	0	0	478	0	0	0	3	1,725	1,725	8
France	0	0	331	0	0	0	0	851	851	4
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Greece	0	0	235	0	0	0	0	235	235	1
Guatemala	0	0	0	0	0	0	0	0	633	3
India	0	0	2,995	0	0	0	0	6,485	6,695	32
Italy	0	0	21	262	0	0	0	3,707	3,707	17
Japan	0	0	11	0	0	0	53	70	70	(s)
Malaysia	0	0	0	0	0	0	0	0	613	3
Mexico	0	0	0	0	0	67	191	10,532	116,246	548
Netherlands	0	803	1,399	0	0	0	10	5,741	5,741	27
Netherlands Antilles	0	0	0	0	0	34	0	543	543	3
Norway	0	0	0	0	0	0	0	334	12,451	59
Oman	0	0	0	0	0	0	0	256	11,668	55
Portugal	0	0	0	0	0	0	0	42	42	(s)
Puerto Rico	0	0	176	0	0	0	0	176	176	1
Spain	0	0	100	0	0	0	0	2,395	2,395	11
Sweden	0	0	246	0	0	0	0	627	627	3
Syria	0	0	0	0	0	0	0	0	218	1
Trinidad and Tobago	0	22	0	0	0	0	0	22	9,120	43
Turkey	0	0	0	0	0	0	0	621	621	3
United Kingdom	0	1	728	0	0	0	0	2,398	35,875	169
U.S.S.R.	0	0	321	0	0	0	0	2,567	2,567	12
Virgin Islands	442	0	40	0	0	0	0	6,830	6,830	32
Yemen (Sana)	0	0	0	0	0	0	0	671	2,661	13
Zaire	0	0	0	0	0	0	0	0	1,141	5
Other	0	0	0	0	0	0	3	1,031	1,031	5
Total	442	1,648	15,024	20,240	56	228	563	129,561	862,849	4,070

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
PAD District IV											
Non OPEC	15,417	1,091	5	0	276	0	370	16	0	43	59
Canada	14,902	1,091	5	0	276	0	370	16	0	43	59
United Kingdom	515	0	0	0	0	0	0	0	0	0	0
Total	15,417	1,091	5	0	276	0	370	16	0	43	59
PAD District V											
Arab OPEC	4,289	0	0	0	1,415	217	0	0	0	0	0
Iraq	644	0	0	0	0	0	0	0	0	0	0
Kuwait	523	0	0	0	0	35	0	0	0	0	0
Saudi Arabia	2,107	0	0	0	1,415	182	0	0	0	0	0
United Arab Emirates	1,015	0	0	0	0	0	0	0	0	0	0
Other OPEC	24,519	0	141	0	0	436	0	2,442	0	0	2,442
Ecuador	773	0	0	0	0	0	0	0	0	0	0
Indonesia	21,933	0	141	0	0	0	0	2,442	0	0	2,442
Venezuela	1,813	0	0	0	0	436	0	0	0	0	0
Non OPEC	26,321	999	493	481	2,052	675	710	1,653	913	0	2,566
Argentina	0	0	184	0	219	0	0	0	0	0	0
Australia	9,829	0	0	0	0	0	0	81	145	0	226
Brazil	0	0	0	0	314	0	0	0	0	0	0
Brunei	1,680	0	0	0	0	0	0	0	0	0	0
Canada	2,189	999	0	0	896	113	710	0	68	0	68
China, People's Republic of	2,555	0	0	481	161	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	243	0	243
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	172	0	0	0	0	0
Italy	0	0	0	0	220	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	0	0	0	0	0
Malaysia	2,971	0	0	0	0	0	0	117	0	0	117
Mexico	3,203	0	0	0	0	167	0	0	0	0	0
Oman	500	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	242	0	0	0	0	0	0
Singapore	0	0	309	0	0	3	0	1,455	363	0	1,818
Thailand	3,394	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	220	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	94	0	94
Total	55,129	999	634	481	3,467	1,328	710	4,095	913	0	5,008

See footnotes at end of table.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-July 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products Total	Crude Oil and Products Daily Average
					PAD District IV					
Non OPEC	0	0	0	0	0	0	607	2,408	17,825	84
Canada	0	0	0	0	0	0	607	2,408	17,310	82
United Kingdom	0	0	0	0	0	0	0	0	515	2
Total	0	0	0	0	0	0	607	2,408	17,825	84
					PAD District V					
Arab OPEC	0	0	0	0	0	0	0	1,632	5,921	28
Iraq	0	0	0	0	0	0	0	0	644	3
Kuwait	0	0	0	0	0	0	0	35	558	3
Saudi Arabia	0	0	0	0	0	0	0	1,597	3,704	17
United Arab Emirates	0	0	0	0	0	0	0	0	1,015	5
Other OPEC	0	0	0	0	0	0	0	3,019	27,538	130
Ecuador	0	0	0	0	0	0	0	0	773	4
Indonesia	0	0	0	0	0	0	0	2,583	24,516	116
Venezuela	0	0	0	0	0	0	0	436	2,249	11
Non OPEC	0	50	262	0	70	12	281	8,651	34,972	165
Argentina	0	0	0	0	0	0	0	403	403	2
Australia	0	0	0	0	0	0	0	226	10,055	47
Brazil	0	0	0	0	0	0	0	314	314	1
Brunei	0	0	0	0	0	0	0	0	1,680	8
Canada	0	50	0	0	0	12	266	3,114	5,303	25
China, People's Republic of	0	0	0	0	39	0	0	681	3,236	15
Colombia	0	0	0	0	0	0	0	243	243	1
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Greece	0	0	0	0	0	0	0	172	172	1
Italy	0	0	0	0	0	0	0	220	220	1
Japan	0	0	50	0	31	0	0	81	81	(s)
Korea, Republic of	0	0	212	0	0	0	0	212	212	1
Malaysia	0	0	0	0	0	0	0	117	3,088	15
Mexico	0	0	0	0	0	0	14	181	3,384	16
Oman	0	0	0	0	0	0	0	0	500	2
Portugal	0	0	0	0	0	0	0	242	242	1
Singapore	0	0	0	0	0	0	0	2,130	2,130	10
Thailand	0	0	0	0	0	0	0	0	3,394	16
Trinidad and Tobago	0	0	0	0	0	0	0	220	220	1
Other	0	0	0	0	0	0	0	94	94	(s)
Total	0	50	262	0	70	12	281	13,302	68,431	323

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, July 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	0	384	0	0	2,383	2,767	89
Natural Gas Liquids	147	346	368	3	307	1,171	38
Pentanes Plus	(s)	0	37	0	2	40	1
Liquefied Petroleum Gases	146	346	331	3	305	1,131	36
Ethane/Ethylene	2	0	0	0	0	2	(s)
Propane/Propylene	30	152	229	2	301	714	23
Normal Butane/Butylene	115	194	103	1	3	416	13
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	1,237	1,002	8,149	15	7,226	17,629	569
Finished Motor Gasoline	62	113	1,092	(s)	17	1,284	41
Naphtha-Type Jet Fuel	0	0	15	0	1	16	1
Kerosene-Type Jet Fuel	1	20	225	0	57	302	10
Kerosene	3	2	1	0	4	10	(s)
Distillate Fuel Oil	17	67	671	0	189	945	30
Residual Fuel Oil	698	(s)	812	0	3,798	5,309	171
Naphtha for Petrochemical Feedstock Use	16	1	38	0	6	61	2
Other Oils for Petrochemical Feedstock Use	0	0	157	0	312	468	15
Special Naphthas	11	44	232	0	45	331	11
Lubricants	148	37	172	8	80	445	14
Waxes	9	1	36	0	10	56	2
Petroleum Coke	260	626	4,625	7	2,691	8,209	265
Asphalt and Road Oil	2	86	3	(s)	14	105	3
Miscellaneous Products	11	4	70	(s)	3	89	3
Total	1,384	1,731	8,518	19	9,916	21,568	696

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-July 1990

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	10	2,858	0	2	20,444	23,315	110
Natural Gas Liquids	665	1,975	3,481	9	1,986	8,116	38
Pentanes Plus	21	0	323	0	13	358	2
Liquefied Petroleum Gases	643	1,975	3,158	9	1,973	7,758	37
Ethane/Ethylene	12	(s)	0	0	2	14	(s)
Propane/Propylene	203	1,123	2,124	6	1,943	5,399	25
Normal Butane/Butylene	429	852	1,033	3	27	2,344	11
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	6,629	3,231	62,898	51	57,983	130,792	617
Finished Motor Gasoline	213	177	7,419	1	521	8,331	39
Naphtha-Type Jet Fuel	(s)	(s)	33	0	1,006	1,040	5
Kerosene-Type Jet Fuel	32	73	2,226	(s)	1,323	3,655	17
Kerosene	48	23	37	0	35	144	1
Distillate Fuel Oil	226	342	8,784	1	4,253	13,606	64
Residual Fuel Oil	2,709	198	11,023	0	28,280	42,211	199
Naphtha for Petrochemical Feedstock Use	106	2	880	0	43	1,031	5
Other Oils for Petrochemical Feedstock Use	0	0	2,872	0	1,816	4,688	22
Special Naphthas	81	94	904	2	497	1,578	7
Lubricants	1,096	300	1,940	30	630	3,997	19
Waxes	50	30	191	(s)	106	377	2
Petroleum Coke	1,840	1,815	26,335	16	19,299	49,305	233
Asphalt and Road Oil	158	171	41	(s)	87	457	2
Miscellaneous Products	69	5	212	(s)	88	373	2
Total	7,304	8,064	66,379	62	80,413	162,223	765

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, July 1990
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	3	515	0
Bahama Islands	0	0	0	60	28	0	207	267	0
Bahrain	0	0	0	0	0	0	3	0	0
Belgium & Luxembourg	0	2	42	0	0	0	0	0	0
Brazil	0	0	(s)	0	0	0	0	0	7
Canada	384	0	365	304	263	2	182	253	1
Chile	0	(s)	(s)	0	0	0	(s)	0	0
China, People's Republic of	0	0	0	0	0	0	0	0	0
China, Taiwan	0	0	0	0	0	0	1	672	1
Colombia	0	0	1	0	0	0	(s)	0	(s)
Costa Rica	0	0	0	0	0	0	0	0	1
Denmark	0	0	1	0	0	0	0	0	(s)
Dominican Republic	0	0	88	0	0	0	1	0	1
Ecuador	0	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	38	12	0	48	0	0
Finland	0	0	0	0	0	0	0	0	0
France	0	0	3	0	0	0	(s)	0	0
French Pacific Islands	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	68	0	0	0	0	0	1
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	(s)	0	0	0	0	30	0
Guatemala	0	0	(s)	47	14	0	84	1	0
Guinea	0	0	0	0	0	0	0	0	0
Honduras	0	0	3	0	0	1	0	0	0
Hong Kong	0	0	0	0	0	0	0	(s)	1
India	0	0	0	0	0	0	0	0	2
Indonesia	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	1	0	0	0
Israel	0	0	0	198	0	0	0	0	(s)
Italy	0	0	1	0	0	0	0	0	0
Jamaica	0	0	11	7	0	(s)	127	844	0
Japan	0	2	(s)	60	0	0	56	68	25
Korea, Republic of	0	0	(s)	0	0	0	51	1,035	5
Malaysia	0	0	0	0	0	1	0	0	0
Mexico	0	35	476	569	0	3	20	1,075	3
Netherlands	0	0	29	0	0	0	(s)	0	0
Netherlands Antilles	0	0	0	0	0	0	(s)	305	0
New Zealand	0	0	0	0	0	0	0	0	(s)
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	(s)	0	0	0	0	0
Panama	0	0	21	0	0	0	143	0	0
Peru	0	0	0	0	0	0	0	0	0
Philippines	0	0	(s)	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	499	0	8	0	0	0	10	(s)	11
Saudi Arabia	0	0	0	0	0	0	1	0	0
Singapore	0	0	0	0	0	0	(s)	0	(s)
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	(s)	0	1
Suriname	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	(s)	(s)	0	0
Switzerland	0	0	0	0	0	0	0	0	0
Thailand	0	0	(s)	0	0	0	0	0	1
Trinidad and Tobago	0	0	0	0	0	0	0	140	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	1	0	0
United Kingdom	0	0	0	(s)	0	0	2	104	0
U.S.S.R.	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	2	0	0	0	0	0	0
Virgin Islands	1,884	0	0	0	0	2	0	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	0	12	0	0	0	1	0	0
Total	2,767	40	1,131	1,284	318	10	945	5,309	61

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, July 1990 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	(s)	(s)	0	0	0	(s)	(s)
Australia	0	0	4	1	126	(s)	(s)	650	21
Bahama Islands	0	0	1	0	0	(s)	(s)	563	18
Bahrain	0	0	0	0	64	0	0	66	2
Belgium & Luxembourg	0	(s)	12	(s)	894	2	(s)	952	31
Brazil	0	0	1	0	0	(s)	(s)	9	(s)
Canada	0	95	121	8	259	90	6	2,332	75
Chile	0	0	2	(s)	1	(s)	2	5	(s)
China, People's Republic of	0	0	(s)	0	0	0	0	(s)	(s)
China, Taiwan	0	(s)	10	1	1	(s)	2	690	22
Colombia	0	0	2	(s)	0	0	(s)	3	(s)
Costa Rica	0	1	7	(s)	0	0	(s)	9	(s)
Denmark	0	0	(s)	0	137	(s)	(s)	138	4
Dominican Republic	0	0	14	0	0	0	(s)	104	3
Ecuador	0	(s)	1	(s)	0	(s)	0	1	(s)
Egypt	0	0	1	0	0	0	0	1	(s)
El Salvador	0	1	1	0	0	0	(s)	101	3
Finland	0	0	2	(s)	333	0	(s)	335	11
France	93	0	5	2	55	0	66	223	7
French Pacific Islands	0	0	(s)	0	0	0	0	(s)	(s)
Germany, FR (W)	0	(s)	2	18	(s)	1	1	91	3
Ghana	0	0	(s)	0	55	0	0	55	2
Greece	0	0	(s)	(s)	0	0	(s)	30	1
Guatemala	0	2	3	(s)	0	0	(s)	152	5
Guinea	0	0	1	0	0	0	0	1	(s)
Honduras	0	(s)	2	(s)	0	0	(s)	6	(s)
Hong Kong	0	1	2	1	0	0	(s)	5	(s)
India	0	0	17	(s)	0	(s)	0	19	1
Indonesia	0	0	2	(s)	103	(s)	(s)	105	3
Ireland	0	0	0	0	0	0	0	1	(s)
Israel	0	0	1	(s)	0	0	0	199	6
Italy	0	2	1	(s)	2,139	0	0	2,142	69
Jamaica	0	(s)	(s)	0	32	0	(s)	1,022	33
Japan	113	(s)	32	3	1,204	2	1	1,567	51
Korea, Republic of	199	(s)	7	1	202	(s)	(s)	1,500	48
Malaysia	0	0	1	(s)	0	0	(s)	2	(s)
Mexico	0	2	105	13	70	5	1	2,378	77
Netherlands	64	221	9	1	731	1	3	1,059	34
Netherlands Antilles	0	0	1	(s)	0	0	0	307	10
New Zealand	0	0	1	(s)	(s)	(s)	0	1	(s)
Nigeria	0	0	1	0	0	0	0	1	(s)
Norway	0	0	1	(s)	72	0	(s)	73	2
Panama	0	0	2	0	0	0	0	167	5
Peru	0	1	(s)	0	(s)	0	(s)	1	(s)
Philippines	0	0	4	(s)	0	0	(s)	4	(s)
Portugal	0	0	(s)	(s)	0	0	0	(s)	(s)
Puerto Rico	0	3	23	2	0	0	1	557	18
Saudi Arabia	0	0	2	0	0	0	(s)	3	(s)
Singapore	0	(s)	1	(s)	(s)	(s)	(s)	3	(s)
South Africa	0	0	0	(s)	0	0	(s)	(s)	(s)
Spain	0	0	(s)	(s)	365	(s)	0	367	12
Suriname	0	0	1	0	0	(s)	(s)	1	(s)
Sweden	0	0	1	0	0	0	(s)	2	(s)
Switzerland	0	0	(s)	(s)	0	0	0	(s)	(s)
Thailand	0	0	3	0	0	0	(s)	5	(s)
Trinidad and Tobago	0	0	(s)	0	0	(s)	(s)	140	5
Turkey	0	0	0	0	533	0	0	533	17
United Arab Emirates	0	0	(s)	(s)	58	0	0	60	2
United Kingdom	0	0	16	1	691	1	1	815	26
U.S.S.R.	0	0	4	0	0	0	0	4	(s)
Uruguay	0	0	1	0	0	0	0	1	(s)
Venezuela	0	2	(s)	(s)	(s)	(s)	1	6	(s)
Virgin Islands	0	0	(s)	0	0	0	0	1,886	61
Yugoslavia	0	0	(s)	0	84	0	0	84	3
Other	0	(s)	15	1	0	(s)	1	30	1
Total	468	331	445	56	8,209	105	89	21,568	696

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-July 1990

(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	0
Australia	0	0	3	36	0	3	711	1,579	40
Bahama Islands	0	0	37	423	301	0	1,566	3,460	(s)
Bahrain	0	0	0	0	0	0	3	0	(s)
Belgium & Luxembourg	0	124	83	1	0	2	3	1	111
Brazil	0	0	(s)	1	0	0	0	0	77
Cameroon	0	0	0	0	0	0	0	0	0
Canada	2,871	0	2,162	698	1,702	57	870	3,234	11
Chile	0	(s)	(s)	53	0	0	45	0	4
China, People's Republic of	0	0	0	0	0	0	2	1	2
China, Taiwan	300	0	58	0	0	9	3	4,492	21
Colombia	0	0	27	100	0	0	(s)	0	3
Costa Rica	0	0	(s)	408	48	0	763	0	11
Denmark	0	0	4	0	0	0	0	0	(s)
Dominican Republic	0	0	310	73	28	0	206	587	6
Ecuador	0	0	0	11	0	0	3	0	3
Egypt	0	0	(s)	0	0	0	0	1	(s)
El Salvador	0	0	31	243	23	0	186	0	2
Finland	0	0	0	0	0	(s)	0	0	0
France	0	0	22	(s)	0	0	(s)	0	19
French Pacific Islands	0	0	0	0	0	0	(s)	543	0
Germany, FR (W)	0	0	123	1	0	2	(s)	58	30
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	1	3	0	0	1	30	0
Guatemala	0	0	44	1,015	100	10	1,378	1	1
Guinea	0	0	0	0	0	0	(s)	0	0
Honduras	0	0	17	35	0	16	51	0	9
Hong Kong	0	6	(s)	0	0	0	15	10	1
India	0	0	1	0	0	0	0	0	18
Indonesia	0	0	0	0	0	0	0	0	(s)
Ireland	0	0	0	0	0	1	0	0	0
Israel	0	0	6	242	389	0	1	213	1
Italy	0	0	45	0	0	2	(s)	681	0
Jamaica	0	1	83	143	165	1	572	3,738	3
Japan	0	6	9	214	1,589	3	1,367	3,578	168
Korea, Republic of	0	0	12	(s)	0	(s)	674	7,133	104
Malaysia	0	0	0	0	0	1	0	0	1
Mexico	0	197	4,039	3,913	(s)	31	255	8,613	29
Netherlands	0	0	29	27	0	(s)	3	(s)	90
Netherlands Antilles	0	0	0	139	0	0	1,044	777	(s)
New Zealand	0	0	(s)	0	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	2	(s)	0	1	0	0	(s)
Panama	0	0	44	54	47	0	846	1,734	6
Peru	0	2	60	0	290	0	100	321	(s)
Philippines	0	0	(s)	0	0	0	0	1	1
Poland	0	0	0	0	0	0	38	73	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	1,281	18	110	216	0	3	80	3	152
Saudi Arabia	0	0	(s)	0	0	0	2	0	7
Singapore	0	0	2	0	0	0	860	520	6
South Africa	0	0	0	0	0	0	(s)	0	0
Spain	0	0	0	0	0	0	708	120	8
Suriname	0	0	83	0	0	0	0	0	(s)
Sweden	0	0	0	(s)	0	1	1	(s)	0
Switzerland	0	0	43	1	0	(s)	0	0	0
Thailand	0	0	1	34	0	(s)	0	0	14
Trinidad and Tobago	0	0	1	0	(s)	0	0	140	0
Turkey	0	0	32	0	0	0	(s)	0	0
United Arab Emirates	0	0	0	(s)	0	0	6	0	0
United Kingdom	0	2	5	3	0	0	4	104	1
U.S.S.R.	0	0	0	0	0	0	(s)	0	0
Uruguay	0	0	0	0	0	0	0	131	0
Venezuela	0	0	143	215	0	0	1,153	334	0
Virgin Islands	18,863	0	(s)	0	0	2	1	0	0
Yugoslavia	0	0	0	0	0	0	0	0	58
Other	0	1	84	30	11	0	34	1	7
Total	**23,315**	**358**	**7,758**	**8,331**	**4,694**	**144**	**13,606**	**42,211**	**1,031**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-July 1990 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	142	(s)	24	(s)	(s)	0	(s)	166	1
Australia	128	91	68	5	1,759	1	1	4,424	21
Bahama Islands	0	0	18	0	0	1	1	5,807	27
Bahrain	0	0	1	0	401	0	0	404	2
Belgium & Luxembourg	0	24	86	3	4,050	8	2	4,495	21
Brazil	0	0	49	(s)	237	(s)	(s)	365	2
Cameroon	0	0	(s)	0	38	0	0	38	(s)
Canada	0	227	870	59	2,696	319	18	15,794	75
Chile	0	(s)	73	1	3	(s)	3	182	1
China, People's Republic of	0	(s)	2	1	0	(s)	(s)	8	(s)
China, Taiwan	0	(s)	163	12	35	2	17	5,112	24
Colombia	0	(s)	26	1	2	(s)	1	160	1
Costa Rica	0	12	59	1	0	0	1	1,303	6
Denmark	0	2	(s)	1	394	1	(s)	402	2
Dominican Republic	0	1	39	1	0	6	1	1,258	6
Ecuador	0	(s)	24	1	0	(s)	1	43	(s)
Egypt	0	0	9	(s)	0	(s)	(s)	11	(s)
El Salvador	0	3	12	(s)	0	0	(s)	501	2
Finland	0	0	7	(s)	334	0	1	342	2
France	1,018	(s)	15	14	1,200	15	88	2,391	11
French Pacific Islands	0	(s)	1	0	0	0	(s)	545	3
Germany, FR (W)	70	1	35	48	558	28	4	959	5
Ghana	0	0	1	0	223	0	0	224	1
Greece	0	1	4	(s)	831	0	(s)	871	4
Guatemala	0	11	34	2	0	0	1	2,596	12
Guinea	0	0	5	0	0	0	(s)	5	(s)
Honduras	0	6	20	(s)	0	0	(s)	154	1
Hong Kong	0	1	10	3	0	0	3	49	(s)
India	0	(s)	33	2	(s)	1	4	59	(s)
Indonesia	0	1	13	1	200	1	23	237	1
Ireland	0	0	7	1	0	0	(s)	9	(s)
Israel	0	(s)	12	(s)	546	0	1	1,412	7
Italy	314	5	11	4	7,864	4	1	8,930	42
Jamaica	0	(s)	16	1	61	0	2	4,785	23
Japan	592	120	271	21	9,623	12	13	17,586	83
Korea, Republic of	932	194	69	4	605	2	64	9,793	46
Malaysia	209	(s)	5	5	17	0	1	240	1
Mexico	6	17	699	70	452	23	21	18,365	87
Netherlands	515	703	58	5	5,188	7	48	6,673	31
Netherlands Antilles	0	0	243	1	7	2	(s)	2,212	10
New Zealand	0	0	11	1	254	(s)	(s)	269	1
Nigeria	0	0	7	(s)	0	0	1	8	(s)
Norway	0	0	2	(s)	456	0	(s)	461	2
Panama	0	1	147	(s)	0	0	(s)	2,880	14
Peru	0	1	53	(s)	1	(s)	(s)	828	4
Philippines	119	0	29	2	(s)	0	1	154	1
Poland	0	0	1	0	0	0	0	162	1
Portugal	0	0	10	(s)	0	(s)	(s)	10	(s)
Puerto Rico	0	133	135	9	0	0	8	2,148	10
Saudi Arabia	0	1	25	(s)	(s)	0	7	43	(s)
Singapore	98	1	56	1	25	6	17	1,592	8
South Africa	0	(s)	(s)	(s)	381	1	(s)	383	2
Spain	365	(s)	19	51	5,671	2	(s)	6,945	33
Suriname	0	0	3	0	0	(s)	1	87	(s)
Sweden	0	1	8	(s)	295	(s)	1	308	1
Switzerland	0	0	4	(s)	8	1	(s)	56	(s)
Thailand	89	0	17	(s)	0	0	5	160	1
Trinidad and Tobago	0	(s)	1	(s)	2	(s)	1	145	1
Turkey	0	0	14	(s)	1,822	0	0	1,869	9
United Arab Emirates	0	(s)	5	(s)	239	(s)	(s)	251	1
United Kingdom	92	(s)	69	42	1,384	6	6	1,717	8
U.S.S.R.	0	6	174	0	279	0	0	460	2
Uruguay	0	0	6	(s)	0	0	(s)	137	1
Venezuela	0	2	8	1	335	2	1	2,194	10
Virgin Islands	0	9	1	(s)	0	0	(s)	18,877	89
Yugoslavia	0	0	(s)	(s)	613	2	0	674	3
Other	0	2	101	1	217	4	2	493	2
Total	4,688	1,578	3,997	377	49,305	457	373	162,223	765

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, July 1990

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**2,478**	**17**	**66**	**0**	**(s)**	**38**	**-2**	**(s)**	**254**	**373**	**2,851**
Algeria	70	17	0	0	0	38	0	0	183	238	308
Iraq	1,120	0	0	0	0	0	0	(s)	0	(s)	1,120
Kuwait	33	0	0	0	0	0	0	(s)	10	10	43
Qatar	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Saudi Arabia	1,242	0	66	0	(s)	0	0	(s)	61	127	1,369
United Arab Emirates	13	0	0	0	(s)	0	-2	(s)	(s)	-2	11
Other OPEC	**1,739**	**7**	**81**	**37**	**94**	**69**	**-3**	**(s)**	**75**	**359**	**2,097**
Ecuador	43	0	0	0	4	12	0	(s)	(s)	16	60
Gabon	69	0	0	0	0	0	0	0	0	0	69
Indonesia	137	0	0	0	0	7	-3	(s)	(s)	3	140
Nigeria	825	0	0	0	0	5	0	(s)	0	5	830
Venezuela	665	7	81	37	90	46	(s)	(s)	75	334	999
Non OPEC	**2,506**	**95**	**184**	**38**	**104**	**256**	**-255**	**-2**	**321**	**742**	**3,249**
Angola	303	0	0	0	0	0	0	(s)	(s)	(s)	303
Argentina	10	0	7	0	0	11	3	(s)	8	30	40
Australia	101	24	0	0	(s)	-17	-4	(s)	(s)	3	105
Bahama Islands	0	0	-2	-1	-7	17	0	(s)	(s)	7	7
Belgium & Luxembourg	0	-1	8	0	0	0	-29	(s)	30	8	8
Brazil	0	(s)	37	0	0	35	0	(s)	1	73	73
Brunei	30	0	0	0	0	0	0	0	0	0	30
Cameroon	16	0	0	0	0	0	0	0	0	0	16
Canada	646	64	29	2	38	22	-7	-2	13	160	806
China, People's Republic of	122	0	5	0	0	0	0	(s)	5	10	132
China, Taiwan	0	0	0	0	(s)	-22	(s)	(s)	(s)	-22	-22
Colombia	111	(s)	0	0	(s)	58	0	(s)	(s)	58	169
Congo	36	0	0	0	0	0	0	0	0	0	36
Egypt	23	0	0	0	0	0	0	(s)	8	8	30
France	0	(s)	7	0	(s)	9	-2	(s)	(s)	14	14
Greece	0	(s)	0	0	10	-1	0	(s)	(s)	9	9
Guatemala	0	(s)	-2	(s)	-3	(s)	0	(s)	(s)	-5	-5
India	0	0	0	0	0	0	0	-1	28	27	27
Italy	11	(s)	0	0	0	16	-69	(s)	29	-24	-13
Jamaica	0	(s)	(s)	0	-4	-22	-1	(s)	(s)	-27	-27
Japan	0	(s)	-2	0	-2	-2	-39	-1	-5	-51	-51
Korea, Republic of	0	(s)	0	0	-2	-33	-7	(s)	-6	-47	-47
Malaysia	20	0	0	0	0	0	0	(s)	(s)	(s)	20
Mexico	651	16	-18	8	3	-35	-2	-3	-2	-33	618
Netherlands	0	-1	0	0	(s)	0	-24	(s)	27	2	2
Netherlands Antilles	0	0	0	0	(s)	19	0	(s)	2	20	20
Norway	129	0	(s)	0	0	0	-2	(s)	(s)	-2	126
Oman	81	0	0	0	0	0	0	0	0	0	81
Panama	0	-1	0	0	-5	0	0	(s)	0	-5	-5
Peru	0	0	0	0	0	35	(s)	(s)	(s)	35	35
Puerto Rico	-16	(s)	0	0	(s)	(s)	0	8	25	33	17
Romania	0	0	10	0	0	0	0	0	(s)	10	10
Spain	0	0	50	0	(s)	15	-12	(s)	24	78	78
Sweden	0	0	0	0	(s)	0	0	(s)	1	1	1
Thailand	16	(s)	0	0	0	0	0	(s)	(s)	(s)	16
Trinidad and Tobago	73	0	2	0	0	28	0	(s)	(s)	30	103
Turkey	0	0	0	0	0	0	-17	0	0	-17	-17
United Kingdom	166	0	8	0	7	20	-22	-1	7	19	184
U.S.S.R.	0	0	0	0	0	43	0	(s)	49	92	92
Virgin Islands	-61	0	45	29	64	37	0	(s)	77	252	191
Zaire	21	0	0	0	0	0	0	0	0	0	21
Other	18	-6	-1	(s)	5	23	-22	-2	(s)	-3	15
Total	**6,723**	**119**	**331**	**75**	**198**	**364**	**-260**	**-3**	**649**	**1,474**	**8,197**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-July 1990

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	1,990	31	34	16	28	43	-1	(s)	253	404	2,394
Algeria	65	28	0	0	22	32	0	(s)	158	239	303
Iraq	691	0	0	0	1	0	0	(s)	7	8	698
Kuwait	102	0	0	(s)	1	0	0	(s)	3	4	106
Qatar	6	0	0	0	(s)	0	0	(s)	0	(s)	6
Saudi Arabia	1,111	3	34	16	5	8	(s)	(s)	77	144	1,255
United Arab Emirates	16	0	(s)	0	(s)	3	-1	(s)	8	10	26
Other OPEC	1,760	5	72	36	112	99	-3	(s)	71	393	2,154
Ecuador	40	0	(s)	0	1	10	0	(s)	(s)	11	51
Gabon	63	0	0	0	0	(s)	0	(s)	0	(s)	63
Indonesia	119	0	0	0	0	12	-1	(s)	7	18	137
Iran	0	0	0	0	0	0	(s)	0	0	(s)	(s)
Nigeria	887	0	1	0	0	14	0	(s)	(s)	14	901
Venezuela	651	5	72	36	112	63	-2	(s)	64	350	1,001
Non OPEC	2,374	115	237	45	100	217	-226	-9	332	812	3,186
Angola	282	0	0	0	0	0	0	(s)	(s)	(s)	282
Argentina	8	0	5	0	6	11	1	(s)	8	30	38
Australia	53	4	(s)	0	-3	-6	-8	(s)	-1	-16	37
Bahama Islands	0	(s)	-2	-1	-6	29	0	(s)	(s)	19	19
Belgium & Luxembourg	0	(s)	8	0	(s)	2	-19	(s)	22	13	13
Brazil	0	(s)	21	0	0	37	-1	(s)	(s)	57	57
Brunei	11	0	0	0	0	0	0	0	0	0	11
Cameroon	16	0	0	0	0	6	(s)	(s)	0	6	22
Canada	615	97	49	3	49	12	-12	-2	29	226	840
China, People's Republic of	80	0	1	0	(s)	(s)	0	(s)	2	4	84
China, Taiwan	-1	(s)	0	0	(s)	-21	(s)	-1	(s)	-23	-24
Colombia	142	(s)	(s)	0	(s)	45	(s)	(s)	2	46	188
Congo	28	0	0	0	0	5	0	0	(s)	5	32
Egypt	23	(s)	0	0	0	1	0	(s)	13	13	37
France	0	(s)	29	1	4	8	-6	(s)	-2	35	35
Greece	0	(s)	3	3	4	3	-4	(s)	2	10	10
Guatemala	3	(s)	-5	(s)	-6	(s)	0	(s)	(s)	-12	-9
India	1	(s)	0	0	0	0	(s)	(s)	33	33	34
Italy	3	(s)	39	1	1	5	-37	(s)	24	33	36
Jamaica	0	(s)	-1	-1	-3	-17	(s)	(s)	(s)	-22	-22
Japan	0	(s)	-1	-7	-6	-17	-45	-1	-4	-82	-82
Korea, Republic of	0	(s)	(s)	0	-3	-34	-3	(s)	-5	-45	-45
Malaysia	17	0	0	0	0	1	(s)	(s)	-1	-1	16
Mexico	672	18	-18	12	8	-36	-2	-3	2	-19	653
Netherlands	0	(s)	19	2	3	6	-24	(s)	28	33	33
Netherlands Antilles	0	0	(s)	0	-5	12	(s)	-1	4	10	10
Norway	110	(s)	4	0	1	0	-2	(s)	2	4	114
Oman	56	0	0	0	0	0	0	(s)	1	1	57
Panama	0	(s)	(s)	(s)	-4	-7	0	-1	(s)	-13	-13
Peru	0	(s)	0	-1	(s)	14	(s)	(s)	(s)	12	12
Puerto Rico	-6	-1	-1	0	(s)	(s)	0	6	25	29	23
Romania	0	0	4	1	3	0	0	0	14	22	22
Spain	0	0	25	4	-3	7	-27	(s)	15	21	21
Sweden	0	0	(s)	0	(s)	2	-1	(s)	3	4	4
Syria	1	0	0	0	(s)	3	0	(s)	(s)	3	4
Thailand	16	(s)	(s)	0	0	0	0	(s)	-1	-1	15
Trinidad and Tobago	78	(s)	1	1	1	23	(s)	(s)	(s)	26	104
Turkey	2	(s)	0	0	(s)	(s)	-9	(s)	5	-3	-1
United Kingdom	194	3	13	(s)	4	8	-7	(s)	14	35	229
U.S.S.R.	0	0	1	0	9	12	-1	-1	11	30	30
Virgin Islands	-89	(s)	45	30	56	90	0	(s)	81	302	213
Yemen (Sana)	33	0	0	0	0	0	0	0	3	3	36
Zaire	20	0	0	0	(s)	0	0	(s)	(s)	(s)	20
Other	6	-3	-1	-2	-7	15	-18	-2	4	-14	-9
Total	6,124	151	344	97	241	359	-230	-9	657	1,609	7,734

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, July 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	15,628	83,406	767,775	12,581	86,806	966,196
Refinery	14,371	14,496	50,147	2,232	28,472	109,718
Tank Farms and Pipelines	1,233	67,546	115,087	9,352	33,282	226,500
Leases	24	1,364	15,863	997	1,310	19,558
Strategic Petroleum Reserve[a]	0	0	586,678	0	0	586,678
Alaskan In Transit	0	0	0	0	23,742	23,742
Total Stocks, All Oils (excluding Crude Oil)	182,966	173,311	278,586	16,277	93,301	744,441
Refinery	48,073	63,789	151,165	10,914	63,266	337,207
Bulk Terminal	107,312	72,749	77,839	2,804	24,502	285,206
Pipeline	27,376	35,001	42,323	2,377	5,418	112,495
Natural Gas Processing Plant	205	1,772	7,259	182	115	9,533
Pentanes Plus	35	2,444	6,012	153	87	8,731
Refinery	14	329	586	3	27	959
Bulk Terminal	13	1,152	2,816	0	7	3,988
Pipeline	0	765	1,152	83	31	2,031
Natural Gas Processing Plant	8	198	1,458	67	22	1,753
Liquefied Petroleum Gases	5,239	32,906	69,803	966	3,375	112,289
Refinery	1,071	3,775	10,962	353	1,008	17,169
Bulk Terminal	2,240	20,675	46,495	72	2,274	71,756
Pipeline	1,731	6,882	6,545	426	0	15,584
Natural Gas Processing Plant	197	1,574	5,801	115	93	7,780
Ethane/Ethylene	18	4,773	15,789	133	0	20,713
Refinery	16	1	747	0	0	764
Bulk Terminal	2	2,763	11,675	0	0	14,440
Pipeline	0	1,435	2,478	128	0	4,041
Natural Gas Processing Plant	0	574	889	5	0	1,468
Propane/Propylene	3,365	18,009	26,412	408	736	48,930
Refinery	530	1,970	3,412	112	83	6,107
Bulk Terminal	1,156	12,188	18,980	72	577	32,973
Pipeline	1,550	3,235	2,698	156	0	7,639
Natural Gas Processing Plant	129	616	1,322	68	76	2,211
Normal Butane/Butylene	1,801	7,183	21,187	296	2,198	32,665
Refinery	480	1,329	5,068	169	604	7,650
Bulk Terminal	1,074	4,239	12,727	0	1,583	19,623
Pipeline	181	1,326	822	94	0	2,423
Natural Gas Processing Plant	66	289	2,570	33	11	2,969
Isobutane	55	2,941	6,415	129	441	9,981
Refinery	45	475	1,735	72	321	2,648
Bulk Terminal	8	1,485	3,113	0	114	4,720
Pipeline	0	886	547	48	0	1,481
Natural Gas Processing Plant	2	95	1,020	9	6	1,132
Other Hydrocarbons/Alcohol	183	263	517	70	309	1,342
Refinery	183	263	517	70	309	1,342
Unfinished Oils	15,196	16,750	52,051	2,055	26,377	112,429
Refinery						
Naphthas and Lighter	4,749	4,543	13,119	604	4,333	27,348
Kerosene and Light Gas Oils	2,015	1,423	9,675	405	3,956	17,474
Heavy Gas Oils	7,325	6,023	19,183	640	13,722	46,893
Residuum	1,107	4,761	10,074	406	4,366	20,714
Motor Gasoline Blending Components	4,978	8,389	16,786	1,738	7,102	38,993
Refinery	4,807	7,420	15,872	1,698	7,051	36,848
Bulk Terminal	161	652	909	40	20	1,782
Pipeline	10	317	5	0	31	363

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, July 1990 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	**0**	**62**	**77**	**0**	**3**	**142**
Refinery	0	62	77	0	3	142
Finished Motor Gasoline	**56,164**	**48,970**	**49,908**	**4,436**	**20,880**	**180,358**
Refinery	8,651	9,752	19,546	1,661	7,759	47,369
Bulk Terminal	33,700	24,151	10,680	1,684	10,606	80,821
Pipeline	13,813	15,067	19,682	1,091	2,515	52,168
Finished Leaded Motor Gasoline	**151**	**3,201**	**961**	**1,396**	**4,880**	**10,589**
Refinery	64	822	419	635	1,671	3,611
Bulk Terminal	87	1,193	293	500	2,831	4,904
Pipeline	0	1,186	249	261	378	2,074
Finished Unleaded Motor Gasoline	**56,013**	**45,769**	**48,947**	**3,040**	**16,000**	**169,769**
Refinery	8,587	8,930	19,127	1,026	6,088	43,758
Bulk Terminal	33,613	22,958	10,387	1,184	7,775	75,917
Pipeline	13,813	13,881	19,433	830	2,137	50,094
Finished Aviation Gasoline	**268**	**464**	**567**	**50**	**323**	**1,672**
Refinery	12	125	503	32	132	804
Bulk Terminal	235	310	56	12	191	804
Pipeline	21	29	8	6	0	64
Naphtha-Type Jet Fuel	**859**	**987**	**2,586**	**242**	**1,660**	**6,334**
Refinery	240	397	1,853	182	848	3,520
Bulk Terminal	485	342	144	0	622	1,593
Pipeline	134	248	589	60	190	1,221
Kerosene-Type Jet Fuel	**12,861**	**9,098**	**15,595**	**749**	**6,254**	**44,557**
Refinery	2,213	2,042	7,637	431	3,172	15,495
Bulk Terminal	6,164	3,750	1,585	238	2,077	13,814
Pipeline	4,484	3,306	6,373	80	1,005	15,248
Kerosene	**2,385**	**1,557**	**1,893**	**70**	**52**	**5,957**
Refinery	234	825	1,142	48	37	2,286
Bulk Terminal	2,048	570	458	22	10	3,108
Pipeline	103	162	293	0	5	563
Distillate Fuel Oil	**51,663**	**31,602**	**28,478**	**3,123**	**10,384**	**125,250**
Refinery	8,201	8,892	15,615	1,823	4,570	39,101
Bulk Terminal	36,382	14,498	5,207	669	4,479	61,235
Pipeline	7,080	8,212	7,656	631	1,335	24,914
Residual Fuel Oil[b]	**21,496**	**3,574**	**14,610**	**527**	**8,793**	**49,000**
Refinery	2,640	2,318	7,432	527	6,042	18,959
Bulk Terminal	18,856	1,256	7,178	0	2,469	29,759
Pipeline	0	0	0	0	282	282
Less than 0.31% Sulfur	**3,953**	**300**	**1,709**	**46**	**897**	**6,905**
Refinery	144	45	1,444	46	695	2,374
Bulk Terminal	3,809	255	265	0	202	4,531
0.31 to 1.00% Sulfur	**8,526**	**818**	**3,654**	**250**	**715**	**13,963**
Refinery	1,937	376	1,363	250	594	4,520
Bulk Terminal	6,589	442	2,291	0	121	9,443
Greater than 1.00% Sulfur	**9,017**	**2,456**	**9,247**	**231**	**6,899**	**27,850**
Refinery	559	1,897	4,625	231	4,753	12,065
Bulk Terminal	8,458	559	4,622	0	2,146	15,785
Naphtha for Petrochemical Feedstock Use	**278**	**292**	**1,124**	**0**	**119**	**1,813**
Refinery	278	292	1,124	0	119	1,813

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, July 1990 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	3	32	2,248	2	113	2,398
Refinery	3	32	2,248	2	113	2,398
Special Naphthas	642	729	1,420	7	156	2,954
Refinery	99	351	1,272	7	112	1,841
Bulk Terminal	543	378	148	0	44	1,113
Lubricants	3,163	2,120	5,870	73	1,826	13,052
Refinery	719	976	5,189	65	906	7,855
Bulk Terminal	2,444	1,144	681	8	920	5,197
Waxes	52	122	433	92	231	930
Refinery	52	122	433	92	231	930
Petroleum Coke	834	2,219	2,701	26	1,747	7,527
Refinery	834	2,219	2,701	26	1,747	7,527
Asphalt and Road Oil	5,895	10,497	4,724	1,884	3,298	26,298
Refinery	2,368	6,655	3,717	1,825	2,573	17,138
Bulk Terminal	3,527	3,842	1,007	59	725	9,160
Miscellaneous Products	772	234	1,183	14	212	2,415
Refinery	258	192	688	14	130	1,282
Bulk Terminal	514	29	475	0	58	1,076
Pipeline	0	13	20	0	24	57
Total Stocks, All Oils	198,594	256,717	1,046,361	28,858	180,107	1,710,637

[a] Includes 38,395 thousand barrels of domestic crude oil.
[b] Sulfur content not available for stocks held by pipelines.
Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 42. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State, July 1990
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel	Propane/ Propylene
PAD District I	**151**	**42,200**	**2,282**	**44,583**	**21,496**	**1,815**
Connecticut	0	1,474	135	2,584	476	W
Delaware, D.C., Maryland	19	1,819	136	4,574	2,244	W
Florida	1	6,810	207	2,202	1,106	190
Georgia	1	2,911	91	1,261	89	W
Maine, New Hampshire, Vermont	0	882	370	2,372	897	W
Massachusetts	7	1,637	88	2,475	1,813	W
New Jersey	41	9,838	44	11,541	8,099	W
New York	39	3,640	241	6,233	4,123	W
North Carolina	5	2,678	273	1,531	244	W
Pennsylvania	15	4,657	403	5,030	1,012	W
Rhode Island	0	1,028	W	1,267	W	W
South Carolina	0	1,552	99	720	W	W
Virginia	10	3,008	167	2,694	589	W
West Virginia	13	266	W	99	W	W
PAD District II	**2,015**	**31,888**	**1,395**	**23,390**	**3,574**	**14,774**
Illinois	163	6,534	332	3,881	1,405	1,252
Indiana	223	4,002	76	3,870	423	W
Iowa	124	1,183	W	961	W	W
Kansas, Nebraska	572	2,877	18	1,772	53	8,798
Kentucky	9	1,522	49	627	W	W
Michigan	80	3,332	121	2,038	180	1,523
Minnesota	161	1,286	W	2,178	220	W
Missouri	222	1,359	W	928	W	W
North Dakota, South Dakota	110	399	W	680	W	W
Ohio	11	3,834	469	2,241	265	W
Oklahoma	314	1,547	W	1,328	312	1,082
Tennessee	0	2,208	39	981	301	W
Wisconsin	26	1,805	W	1,905	78	W
PAD District III	**712**	**29,514**	**1,600**	**20,822**	**14,610**	**23,714**
Alabama	0	1,487	52	1,084	486	95
Arkansas	20	580	W	204	W	W
Louisiana	11	5,883	346	4,227	5,188	1,883
Mississippi	52	2,080	15	1,760	W	2,952
New Mexico	117	279	W	208	30	W
Texas	512	19,205	1,181	13,339	8,750	18,690
PAD District IV	**1,135**	**2,210**	**70**	**2,492**	**527**	**252**
Colorado	226	699	W	377	W	W
Idaho	136	240	W	169	W	W
Montana	406	591	W	678	48	15
Utah	175	274	W	439	110	164
Wyoming	192	406	W	829	W	43
PAD District V	**4,502**	**13,863**	**47**	**9,049**	**8,511**	**736**
Alaska	174	456	W	885	W	W
Arizona	240	519	W	267	W	W
California	2,321	9,119	38	4,846	5,137	126
Hawaii	71	492	W	478	W	W
Nevada	87	202	W	138	W	W
Oregon	510	917	W	710	212	W
Washington	1,099	2,158	W	1,725	1,485	27
U.S. Total	**8,515**	**119,675**	**5,394**	**100,336**	**48,718**	**41,291**

W = Withheld to avoid disclosure of individual company data.
Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, July 1990
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	0	0	0	126	1,981	430	0	262	63,104
Petroleum Products	7,524	180	0	4,446	5,424	1,726	0	79,353	25,562
Pentanes Plus	0	0	0	0	277	1	0	0	838
Liquefied Petroleum Gases	0	6	0	866	1,886	22	0	1,739	3,431
Unfinished Oils	0	0	0	0	219	0	0	221	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	171	363
Finished Motor Gasoline	5,393	0	0	2,069	1,773	912	0	47,431	11,609
Leaded	0	0	0	0	68	55	0	0	91
Unleaded	5,393	0	0	2,069	1,705	857	0	47,431	11,518
Finished Aviation Gasoline	9	0	0	0	14	21	0	108	123
Jet Fuel	224	0	0	247	138	585	0	10,497	3,751
Naphtha-Type	0	0	0	0	89	0	0	254	75
Kerosene-Type	224	0	0	247	49	585	0	10,243	3,676
Kerosene	0	0	0	26	0	0	0	0	0
Distillate Fuel Oil	1,812	0	0	754	653	185	0	17,395	4,282
Residual Fuel Oil	0	0	0	150	400	0	0	783	0
Petrochemical Feedstocks[a]	86	20	0	22	19	0	0	0	10
Special Naphthas	0	6	0	0	0	0	0	376	138
Lubricants	0	35	0	39	36	0	0	393	394
Waxes	0	0	0	0	0	0	0	5	0
Asphalt and Road Oil	0	113	0	273	0	0	0	153	623
Miscellaneous Products	0	0	0	0	9	0	0	81	0
Total	7,524	180	0	4,572	7,405	2,156	0	79,615	88,666

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	2,557	1,451	0	0	0	6,717	0
Petroleum Products	0	1,768	1,543	835	1,400	0	0	48	0
Pentanes Plus	0	0	129	116	0	0	0	0	0
Liquefied Petroleum Gases	0	0	442	719	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	929	507	0	794	0	0	0	0
Leaded	0	152	107	0	348	0	0	0	0
Unleaded	0	777	400	0	446	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	404	103	0	121	0	0	0	0
Naphtha-Type	0	263	101	0	40	0	0	0	0
Kerosene-Type	0	141	2	0	81	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	435	362	0	485	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	48	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	0	1,768	4,100	2,286	1,400	0	0	6,765	0

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, July 1990
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	0	1,981	430	0	63,104
Petroleum Products	7,438	0	1,935	4,685	1,726	63,426	20,820
Pentanes Plus	0	0	0	277	1	0	838
Liquefied Petroleum Gases	0	0	866	1,886	22	1,569	3,392
Motor Gasoline Blending Components	0	0	0	0	0	74	0
Finished Motor Gasoline	5,393	0	767	1,738	912	37,772	9,697
Leaded	0	0	0	68	55	0	91
Unleaded	5,393	0	767	1,670	857	37,772	9,606
Finished Aviation Gasoline	9	0	0	0	21	22	106
Jet Fuel	224	0	125	138	585	8,484	3,478
Naphtha-Type	0	0	0	89	0	122	75
Kerosene-Type	224	0	125	49	585	8,362	3,403
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	1,812	0	177	637	185	15,505	3,309
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	9	0	0	0
Total	7,438	0	1,935	6,666	2,156	63,426	83,924

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	2,557	1,451	0	3,259	0
Petroleum Products	0	1,768	1,543	835	1,400	0	0
Pentanes Plus	0	0	129	116	0	0	0
Liquefied Petroleum Gases	0	0	442	719	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	929	507	0	794	0	0
Leaded	0	152	107	0	348	0	0
Unleaded	0	777	400	0	446	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	404	103	0	121	0	0
Naphtha-Type	0	263	101	0	40	0	0
Kerosene-Type	0	141	2	0	81	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	435	362	0	485	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,768	4,100	2,286	1,400	3,259	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, July 1990

(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	0	0	0	126	0	0	262	0
Petroleum Products	86	180	0	2,511	739	0	15,927	108
Liquefied Petroleum Gases	0	6	0	0	0	0	170	0
Unfinished Oils	0	0	0	0	219	0	221	0
Motor Gasoline Blending Components	0	0	0	0	0	0	97	0
Finished Motor Gasoline	0	0	0	1,302	35	0	9,659	38
Leaded	0	0	0	0	0	0	0	0
Unleaded	0	0	0	1,302	35	0	9,659	38
Finished Aviation Gasoline	0	0	0	0	14	0	86	0
Jet Fuel	0	0	0	122	0	0	2,013	0
Naphtha-Type	0	0	0	0	0	0	132	0
Kerosene-Type	0	0	0	122	0	0	1,881	0
Kerosene	0	0	0	26	0	0	0	0
Distillate Fuel Oil	0	0	0	577	16	0	1,890	0
Residual Fuel Oil	0	0	0	150	400	0	783	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	150	400	0	783	0
Petrochemical Feedstocks[a]	86	20	0	22	19	0	0	0
Special Naphthas	0	6	0	0	0	0	376	70
Lubricants	0	35	0	39	36	0	393	0
Waxes	0	0	0	0	0	0	5	0
Asphalt and Road Oil	0	113	0	273	0	0	153	0
Miscellaneous Products	0	0	0	0	0	0	81	0
Total	86	180	0	2,637	739	0	16,189	108

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	262	0	0	0	0	0	3,458
Petroleum Products	1,038	14,781	4,742	0	0	0	48
Liquefied Petroleum Gases	0	170	39	0	0	0	0
Unfinished Oils	61	160	0	0	0	0	0
Motor Gasoline Blending Components	97	0	363	0	0	0	0
Finished Motor Gasoline	73	9,548	1,912	0	0	0	0
Leaded	0	0	0	0	0	0	0
Unleaded	73	9,548	1,912	0	0	0	0
Finished Aviation Gasoline	55	31	17	0	0	0	0
Jet Fuel	195	1,818	273	0	0	0	0
Naphtha-Type	0	132	0	0	0	0	0
Kerosene-Type	195	1,686	273	0	0	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	22	1,868	973	0	0	0	0
Residual Fuel Oil	0	783	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	783	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	10	0	0	0	0
Special Naphthas	166	140	138	0	0	0	0
Lubricants	276	117	394	0	0	0	48
Waxes	5	0	0	0	0	0	0
Asphalt and Road Oil	7	146	623	0	0	0	0
Miscellaneous Products	81	0	0	0	0	0	0
Total	1,300	14,781	4,742	0	0	0	3,506

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, July 1990
(Thousand Barrels)

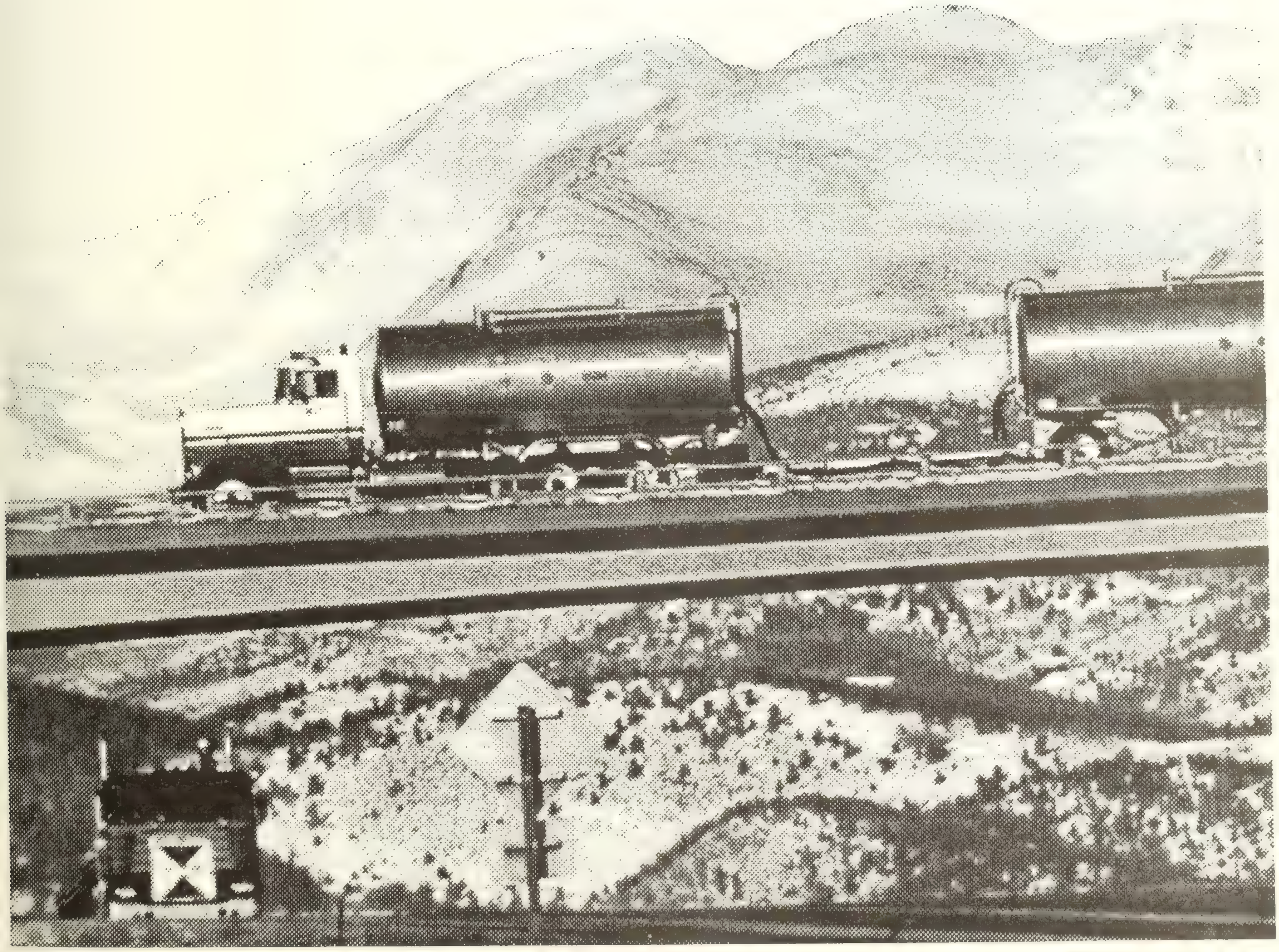
Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	388	0	388	65,661	2,537	63,124
Petroleum Products	83,799	7,704	76,095	34,629	11,596	23,033
Pentanes Plus	0	0	0	967	278	689
Liquefied Petroleum Gases	2,605	6	2,599	3,873	2,774	1,099
Ethane/Ethylene	0	0	0	296	880	-584
Propane/Propylene	2,469	0	2,469	2,321	1,235	1,086
Normal Butane/Butylene	0	6	-6	367	335	32
Isobutane	136	0	136	889	324	565
Unfinished Oils	221	0	221	0	219	-219
Motor Gasoline Blending Components	171	0	171	363	0	363
Finished Motor Gasoline	49,500	5,393	44,107	17,509	4,754	12,755
Leaded	0	0	0	198	123	75
Unleaded	49,500	5,393	44,107	17,311	4,631	12,680
Finished Aviation Gasoline	108	9	99	132	35	97
Jet Fuel	10,744	224	10,520	4,078	970	3,108
Naphtha-Type	254	0	254	176	89	87
Kerosene-Type	10,490	224	10,266	3,902	881	3,021
Kerosene	26	0	26	0	26	-26
Distillate Fuel Oil	18,149	1,812	16,337	6,456	1,592	4,864
Residual Fuel Oil	933	0	933	0	550	-550
Petrochemical Feedstocks[a]	22	106	-84	96	41	55
Special Naphthas	376	6	370	138	0	138
Lubricants	432	35	397	394	75	319
Waxes	5	0	5	0	0	0
Asphalt and Road Oil	426	113	313	623	273	350
Miscellaneous Products	81	0	81	0	9	-9
Total	84,187	7,704	76,483	100,290	14,133	86,157

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	10,149	63,366	-53,217	430	4,008	-3,578	0	6,717	-6,717
Petroleum Products	6,487	106,683	-100,196	1,726	3,778	-2,052	3,168	48	3,120
Pentanes Plus	393	838	-445	1	245	-244	0	0	0
Liquefied Petroleum Gases	2,611	5,170	-2,559	22	1,161	-1,139	0	0	0
Ethane/Ethylene	1,070	223	847	0	263	-263	0	0	0
Propane/Propylene	748	3,892	-3,144	21	432	-411	0	0	0
Normal Butane/Butylene	502	227	275	1	302	-301	0	0	0
Isobutane	291	828	-537	0	164	-164	0	0	0
Unfinished Oils	219	221	-2	0	0	0	0	0	0
Motor Gasoline Blending Components	0	534	-534	0	0	0	0	0	0
Finished Motor Gasoline	1,773	59,969	-58,196	912	1,301	-389	1,723	0	1,723
Leaded	68	243	-175	55	455	-400	500	0	500
Unleaded	1,705	59,726	-58,021	857	846	11	1,223	0	1,223
Finished Aviation Gasoline	14	231	-217	21	0	21	0	0	0
Jet Fuel	138	14,652	-14,514	585	224	361	525	0	525
Naphtha-Type	89	592	-503	0	141	-141	303	0	303
Kerosene-Type	49	14,060	-14,011	585	83	502	222	0	222
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	653	22,112	-21,459	185	847	-662	920	0	920
Residual Fuel Oil	400	783	-383	0	0	0	0	0	0
Petrochemical Feedstocks[a]	39	10	29	0	0	0	0	0	0
Special Naphthas	6	514	-508	0	0	0	0	0	0
Lubricants	119	787	-668	0	0	0	0	48	-48
Waxes	0	5	-5	0	0	0	0	0	0
Asphalt and Road Oil	113	776	-663	0	0	0	0	0	0
Miscellaneous Products	9	81	-72	0	0	0	0	0	0
Total	16,636	170,049	-153,413	2,156	7,786	-5,630	3,168	6,765	-3,597

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pensylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

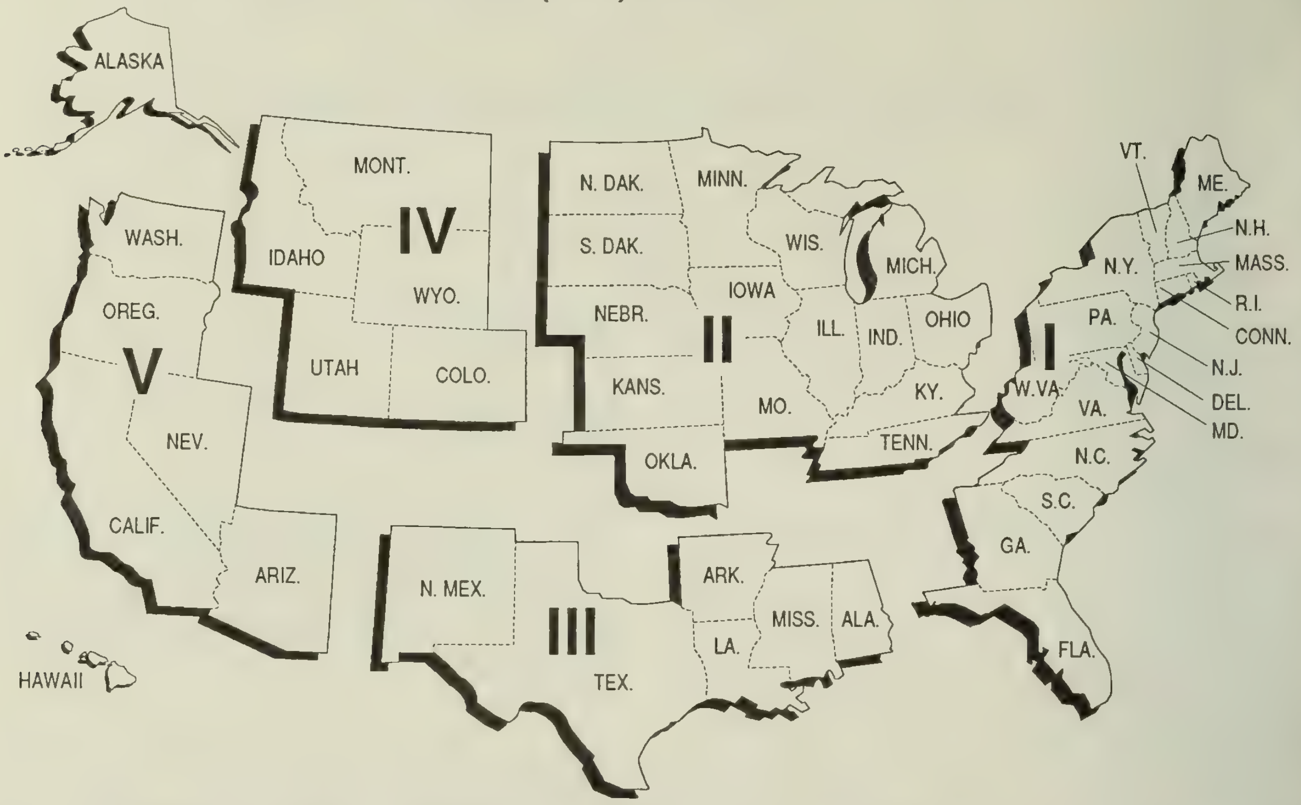
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

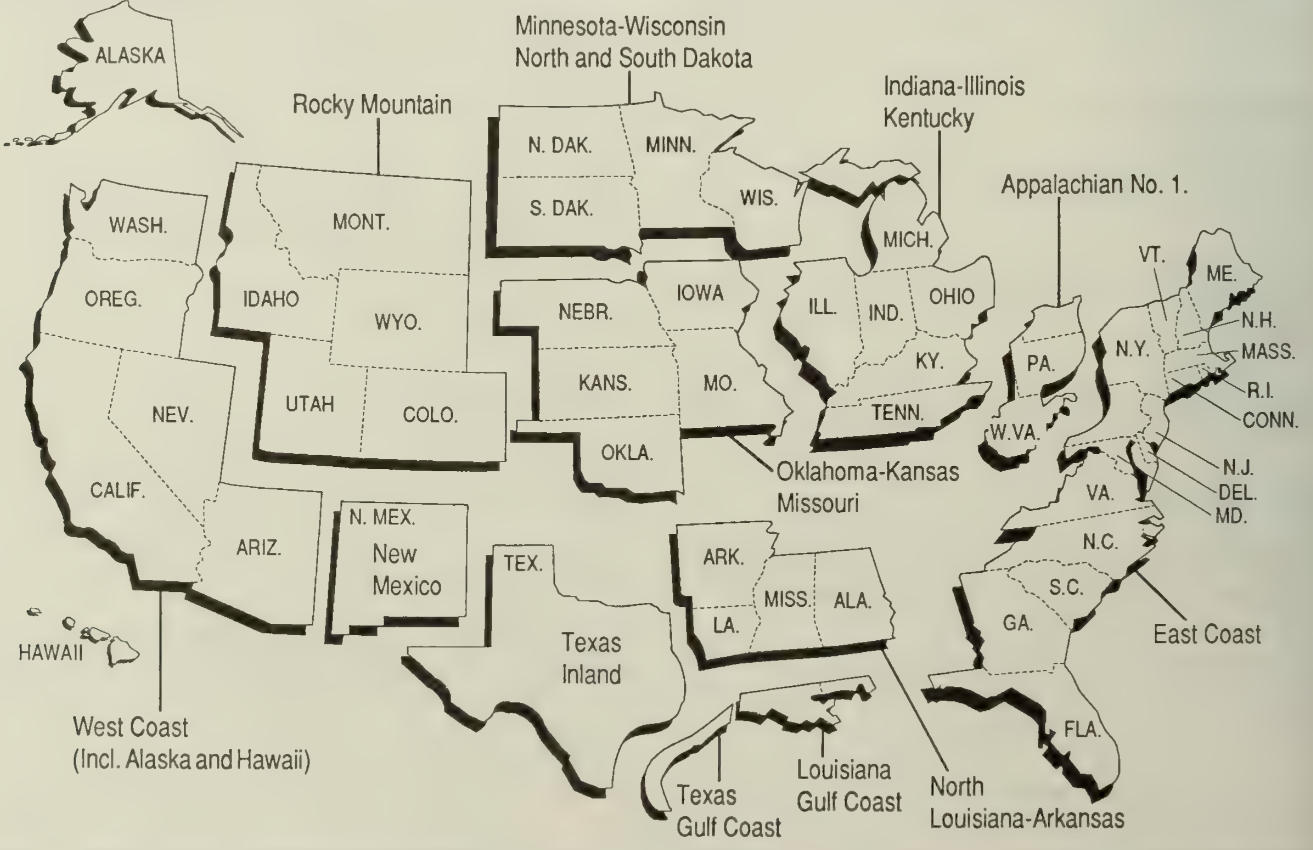
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

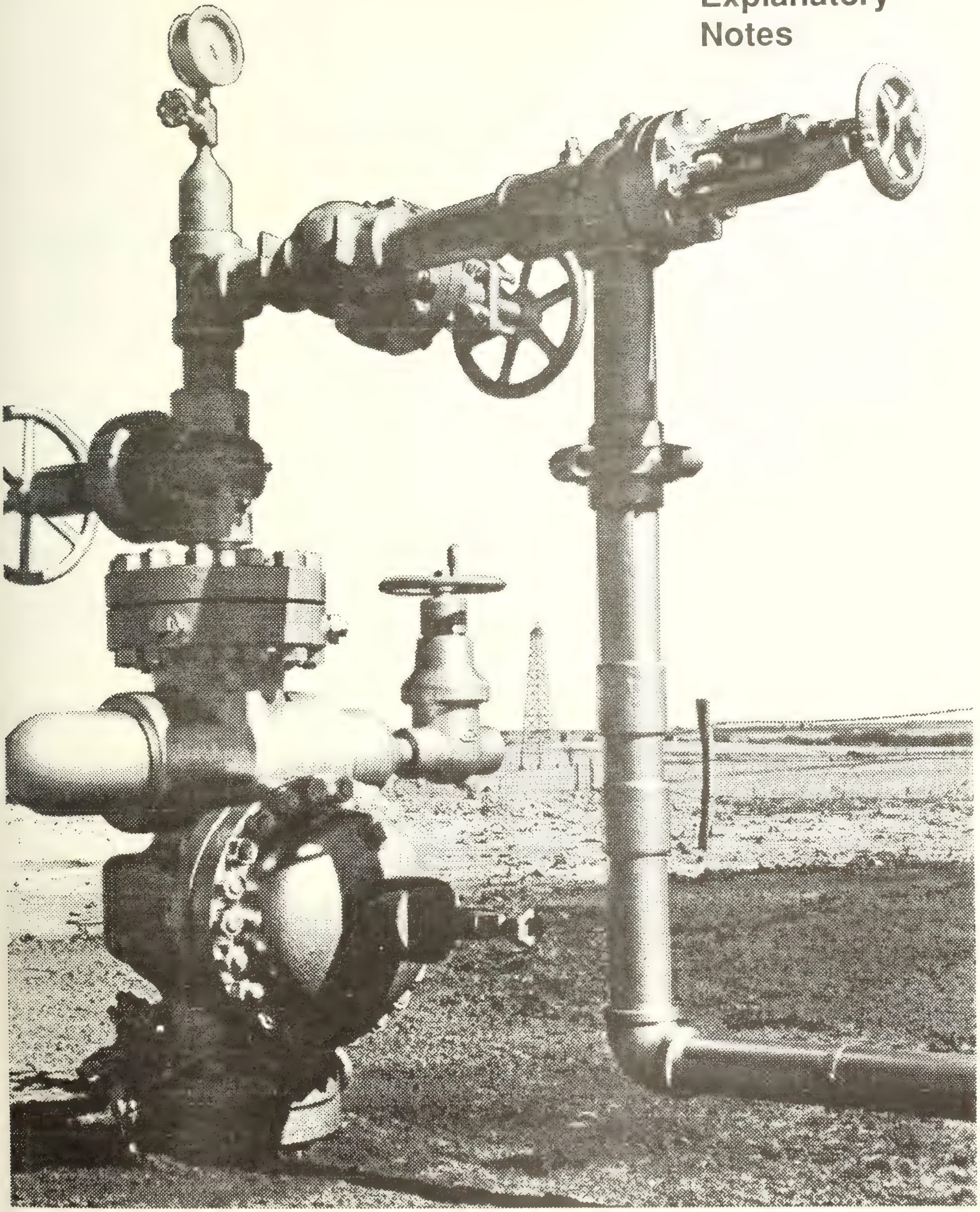


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*
EIA-820	*Annual Refinery Report*

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities which appear in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report.*

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is found in the feature article in the *PSM* entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the July 1989 issue and dealt with the years 1984-1988. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report*, collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume 1.

Note 3. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort by the Energy Information Administration (EIA) to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possessions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or

petroleum products transported by tanker or barge between Petroleum Administration for Defense (PAD) Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report.*

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands, and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of the processing or storage facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

Survey forms for the MPSRS can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as

provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy regulations implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The information contained on Form EIA-814 are not considered confidential and historically has not been treated as such.

Note 4. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems — the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e.,stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figure, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stocks figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday)

and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables are:

- **Table S1. Crude Oil and Petroleum Products Overview**

  The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

  Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

  Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

  Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

  Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

  Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

  Unless otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

  Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

  Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure		Figure Source
Figure S1.	Petroleum Overview	Table S1
Figure S2.	Petroleum Products Supplied	Table S1
Figure S3.	Crude Oil Supply & Disposition	Table S2
Figure S4.	Crude Oil Ending Stocks	Table S2
Figure S5.	Finished Motor Gasoline Supply & Disposition	Table S4
Figure S6.	Motor Gasoline Ending Stocks	Table S4
Figure S7.	Distillate Fuel Oil Supply & Disposition	Table S5
Figure S8.	Distillate Fuel Oil Ending Stocks	Table S5
Figure S9.	Residual Fuel Oil Supply & Disposition	Table S6
Figure S10.	Residual Fuel Oil Ending Stocks	Table S6
Figure S11.	Liquefied Petroleum Gases Supply & Disposition	Table S7
Figure S12.	Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (PAD) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The table, form or other source for items of each table are described below. Column and row headings are defined in the Glossary.

- **Table 1** - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).
  - Lines (1) through (3): Crude Oil Field Production for Alaska and Total U.S. appear as labeled in Table 14. Lower 48 states are calculated by subtracting Alaska crude oil production from Total U. S. crude oil production.
  - Line (4): Crude Oil Imports, excluding Strategic Petroleum Reserve (SPR), are reported on Form EIA-814.
  - Line (5): SPR Imports are reported on Form EIA-814.

- Line (6): Exports of crude oil taken from Census tapes and data are reported on Form EIA-810 for U.S. territories.

- Line (7): Sum of lines (4) through (6).

- Line (8): The difference between the previous month and current month ending stocks held in the SPR.

- Line (9): The difference between the previous month and current month ending stocks (excluding SPR).

- Line (10): The sum of Crude Oil Product Supplied and Crude Losses as shown in Table 2.

- Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.

- Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.

- Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).

- Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.

- Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.

- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.

- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).

- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (19): The sum of unfinished oils and motor and aviation gasoline blending component imports reported on Form EIA-814.

- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.

- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.

- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.

- Line (23): Total Other Liquids equals the sum of lines (18) through (22).

- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).

- Line (25): Gross Imports of Refined Products equals imports of LPGs plus imports of finished petroleum products as shown in Table 2.

- Line (26): Exports of Refined Products equals exports of LPGs plus exports of finished petroleum products as shown in Table 2.

- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).

- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).

- Line (29): Refined Products Stock Change equals the sum of stock change for LPGs and finished petroleum products in Table 2.

- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.

- Lines (31) through (34): Equal the respective products supplied of same in Table 2.

- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.

- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.

- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.

- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.

- Line (44): Other Products stocks equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on data received from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 8 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816, *Monthly Natural Gas Liquids Report,* and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report.*

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report.* Refinery production of other hydrocarbons, hydrogen and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report.*

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report,* as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report,* that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report*. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel . These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.
- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.
- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.
- **Tables 6 through 15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.
- **Table 16** - State government agencies. See Explanatory Note 8.

  Table 16 provides estimates for crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report*.

  Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report*.
- **Table 19** - Form EIA-810, *Monthly Refinery Report*.

Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*

- **Table 21** - Calculated from Tables 18 and 19.

  To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

  To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

  To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline), the production for each product listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*

- **Tables 35 through 38** - Census Export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*

- **Tables 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594) and Form EIA-810, *Monthly Refinery Report.*

  A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported on Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum products are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

  Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

  Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report.* Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*. After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.
- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.
- The final estimate is published in the *PSA*.

Note 9. Export Data Source

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the *Petroleum Supply Monthly* reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month

Date of Data Availability	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90
Reported State Data[c]																		
5-14-89	0																	
6-14-89	1987	0																
7-14-89	4279	2048	0															
8-14-89	6290	4565	1930	0														
9-14-89	7193	6423	2748	1789	0													
10-14-89	7630	7211	7008	4491	1939	0												
11-14-89	7665	7663	7023	6825	4796	1974	0											
12-14-89	7665	7703	7479	6876	6960	4639	1960	0										
1-14-90	7664	7700	7508	7307	7380	6659	4426	1993	0									
2-14-90	7668	7711	7515	7311	7400	7385	6640	4406	1990	0								
3-14-90	7727	7770	7576	7370	7460	7445	7367	6975	4649	1927	0							
4-14-90	7768	7811	7622	7428	7537	7542	7447	7532	6259	4575	1912	0						
5-14-90	7774	7818	7626	7438	7544	7549	7456	7541	7308	6240	4598	1893	0					
6-14-90	7777	7821	7629	7449	7549	7555	7461	7559	7305	7366	7274	4337	1977	0				
7-14-90	7777	7822	7629	7450	7549	7555	7462	7568	7314	7382	7320	6820	4705	1841	0			
8-14-90	7778	7823	7638	7452	7549	7556	7464	7572	7315	7393	7338	7256	6742	4444	1672	0		
9-14-90	7778	7823	7638	7452	7549	7556	7464	7572	7316	7394	7339	7263	6831	6701	3919	1757	0	0
Producing States Without Reported Monthly Production[d]																		
9-14-90	0	0	0	0	0	0	0	0	0	0	5	5	6	6	18	29	33	33

	4-89	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90
Production Estimate																		
Original[e]	7786	7843	7726	7622	7662	7641	7644	7601	7565	7512	7399	7410	7310	7241	6981	7130	6971	6991
Interim[f]	7747	7807	7660	7474	7589	7563	7462	7564	7372	7522	7465	7394	7331	7259	7076	7144		
Form EIA-182																		
Initial	7559	7636	7544	7351	7497	7442	7378	7473	7243	7479	7458	7356	7316	7220	7013	7116		
Revised	7563	7686	7541	7351	7499	7448	7389	7497	7247	7481	7440	7368	7317	7223	7022			
Final[g]	7772	7816	7624	7444	7544	7548	7453	7536	7337									

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1989 (annual average of 96 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan is counted as having monthly reported data in 1989 after its annual report was received. These data are first reported as of 3-14-90. New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1989 after their annual reports were received. These data were first reported as of 4-14-90.

[e] Original estimates were made on the first of each month. The original estimate for March 1989 was revised on April 3, 1989, to reflect the Alaskan oil spill.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1989, DOE/EIA 0340(89)/2.

Note 10. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) monitors the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, a comparison of the data collected on the PSRS with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 11. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership. Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 -1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B2 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement.*

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate fuel oil, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of finished motor gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the Energy Information Administration (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

Table B4. Product Basis vs. Component Basis Reporting

1979-1983 Product Basis	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures			•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *Petroleum Supply Monthly* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are the following:

- Tables 6 through 10, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products".
    - Effective January 1985, crude oil imports and unfinished oil imports in Tables 4 through 8 were reported at the *PAD District of entry* rather than at the *PAD District of processing. Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
    - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
    - A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
    - The crude oil line includes movements by pipeline as well as by tanker and barge.

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814)	—	—	—	—	100
Plant Condensate (EIA-814)	—	—	—	—	100
Ethane (IM-145)	100	—	—	—	—
Propane (IM-145)	—	100	—	—	—
Butane (IM-145)	—	—	65	35	—
Butane-Propane Mixtures (IM-145)	—	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	—	—	—
Export Product					
Ethane (All PAD Districts)	100	—	—	—	—
Propane (All PAD Districts)	—	100	—	—	—
Butane (All PAD Districts)	—	—	100	—	—
Mixed Streams					
PAD Districts I, IV, V	—	40	60	—	—
PAD District II	30	25	15	15	15
PAD District III	—	80	20	—	—

Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSA* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
  - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District."
  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Table 18 and 19, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.

- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affected *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSA* statistics. The principal differences in the *PSA* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989 and subsequently reflected in the *Petroleum Supply Annual.*

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*

Table B6. Impact of New Respondents to December 1985 PSM Data

	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	—	—	2,314	318,695

[a] Stocks as of December 31, 1985.

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene)were added to Form EIA-810, *Monthly Refinery Report.*

- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report,* and the EIA-817, *Monthly Tanker and Barge Movement Report.*

- Bonded imports of jet fuel and fuel oils and imports of LPGs previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*

- Exports of butane/propane and ethane/propane mixtures were split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.

- The reporting of products other than Natural Gas Liquids (NGLs) by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

- Fractionators were required to report only end-of-month stocks of NGLs on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments were being made to refinery inputs and product supplied of NGLs and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment was made to refinery input in all Petroleum Administration for Defense (PAD) Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year-to-date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."

  - Stocks at natural gas processing plants by Refining Districts previously published on Table 24 was included with net production of petroleum products at natural gas plants.

  - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."

  - Net production of olefins (ethylene, propylene, and butylene) was added.

Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

  - Net production of naphthenic and paraffinic lubricants was added.

  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."

  - Stocks at refineries by Refining District were added from the old stock table (Table 24).

  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."

  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.

  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination."

  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District."

  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.

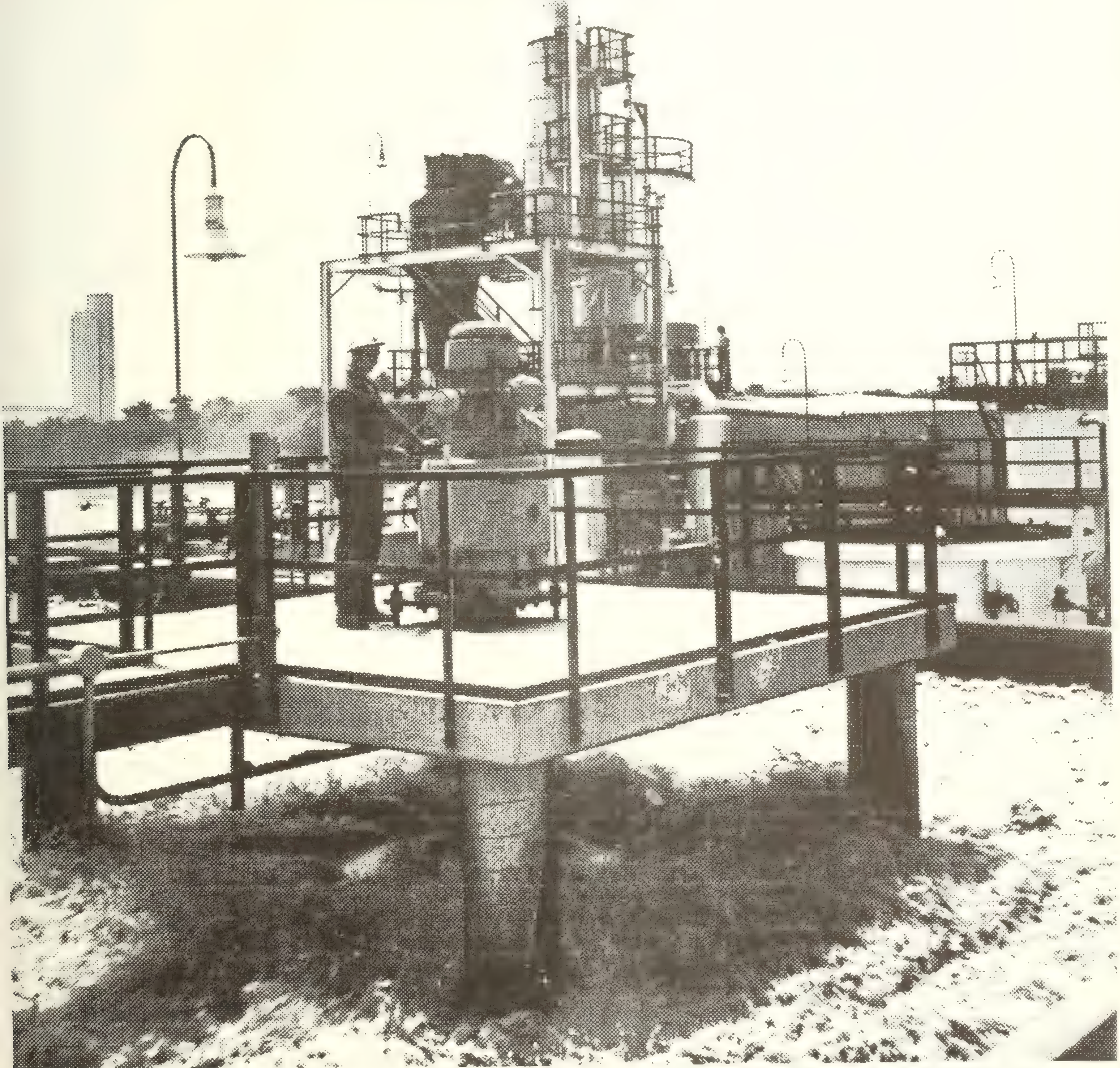
  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

Appendix C

Impact of Resubmissions on Major Series, 1990

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Table C1. Impact of Resubmissions on Major Series, 1990
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Differenc
Inputs	**14,614**	**15**	**14,484**	**2**	**13,868**	**5**	**14,112**	**4**	**14,136**	**8**	**–**	**–**	**7**
Crude Oil	13,499	-2	13,494	-1	12,876	4	13,051	4	13,389	(s)	--	--	1
Pentanes Plus	165	1	176	2	171	1	179	0	179	0	--	--	1
LPGs	416	-3	346	-2	205	(s)	200	(s)	216	0	--	--	-1
Ethane/Ethylene	0	0	(s)	0	(s)	0	1	0	(s)	0	--	--	0
Propane/Propylene	7	0	9	0	8	0	6	0	8	0	--	--	0
Normal Butane/Butylene	248	-2	183	-1	68	(s)	53	(s)	53	0	--	--	-1
Isobutane	161	-1	154	-1	129	(s)	141	(s)	154	0	--	--	(s)
Other Hydrocarbons	68	5	66	4	65	0	74	0	75	(s)	--	--	2
Unfinished Oils	534	26	513	(s)	481	(s)	510	1	338	8	--	--	7
Motor Gas. Blend. Comp	-68	-11	-107	-1	69	(s)	98	(s)	-60	(s)	--	--	-2
Aviation Gas. Blend. Comp	1	0	-3	0	1	0	1	0	-1	0	--	--	0
Production	**16,868**	**30**	**16,830**	**9**	**16,116**	**16**	**16,310**	**15**	**16,343**	**8**	**–**	**–**	**15**
Pentanes Plus	288	8	304	6	299	4	296	2	306	2	--	--	4
LPGs	1,700	-13	1,784	-34	1,760	4	1,738	9	1,760	3	--	--	-6
Ethane/Ethylene	462	5	465	6	454	3	453	5	448	(s)	--	--	4
Propane/Propylene	874	9	914	5	880	(s)	862	1	848	1	--	--	3
Normal Butane/Butylene	228	-28	230	-46	256	1	258	2	291	2	--	--	-14
Isobutane	136	1	176	(s)	169	(s)	165	1	173	1	--	--	1
Other Hydrocarbons	66	-10	69	-4	72	5	72	0	80	-1	--	--	-2
Finished Motor Gasoline	6,889	-28	6,978	-1	6,612	1	6,764	4	6,599	-1	--	--	-5
Leaded	411	-8	396	-1	389	(s)	393	2	400	(s)	--	--	-1
Unleaded	6,477	-20	6,582	(s)	6,223	1	6,371	2	6,199	-1	--	--	-4
Finished Aviation Gasoline	16	0	22	0	20	0	22	0	28	0	--	--	0
Jet Fuel	1,486	-1	1,498	-1	1,425	0	1,335	-1	1,365	-2	--	--	-1
Naphtha-Type Jet	187	-1	200	-1	201	0	178	(s)	198	0	--	--	(s)
Kerosene-Type Jet	1,299	(s)	1,298	0	1,224	0	1,156	(s)	1,167	-2	--	--	(s)
Kerosene	134	0	96	0	70	0	63	0	50	0	--	--	0
Distillate Fuel Oil	3,136	-7	2,753	(s)	2,655	1	2,802	(s)	2,873	(s)	--	--	-1
Residual Fuel Oil	1,129	33	1,060	0	974	1	880	1	877	6	--	--	8
Naphtha Pet. Feedstock	109	21	133	0	143	0	137	0	142	0	--	--	4
Other Oils Pet. Feedstock	200	25	264	42	268	0	303	0	287	0	--	--	13
Special Naphthas	54	-1	54	0	52	0	56	(s)	59	0	--	--	(s)
Lubricants	156	(s)	166	0	162	0	173	0	165	0	--	--	(s)
Waxes	14	0	19	(s)	17	0	15	0	15	0	--	--	0
Petroleum Coke	538	2	561	0	537	0	546	(s)	541	(s)	--	--	(s)
Asphalt and Road Oil	251	0	326	0	345	0	382	0	480	0	--	--	0
Still Gas	642	2	676	0	649	0	670	0	650	1	--	--	1
Miscellaneous Products	58	(s)	67	1	55	(s)	57	0	66	(s)	--	--	(s)
Imports	**9,147**	**46**	**8,306**	**77**	**7,925**	**23**	**7,758**	**74**	**8,738**	**50**	**–**	**–**	**54**
Crude Oil	6,206	6	5,858	30	6,125	-8	5,740	59	6,438	-5	--	--	16
Pentanes Plus	18	0	11	0	4	0	4	0	13	0	--	--	0
LPGs	245	15	223	11	152	2	148	2	189	1	--	--	6
Ethane/Ethylene	8	0	0	2	6	0	5	0	5	0	--	--	(s)
Propane/Propylene	172	13	147	5	117	1	115	(s)	135	(s)	--	--	4
Normal Butane/Butylene	53	(s)	65	-7	22	1	19	1	37	1	--	--	-1
Isobutane	12	2	11	12	7	1	9	(s)	13	0	--	--	3
Other Hydrocarbons	0	0	0	0	0	0	0	0	0	0	--	--	0
Unfinished Oils	441	0	401	0	369	17	350	7	430	-6	--	--	4
Motor Gas.Blend.Comp	71	0	61	0	71	0	49	0	74	(s)	--	--	(s)
Aviation Gas. Blend. Comp	0	0	0	0	0	0	0	0	0	0	--	--	0
Finished Motor Gasoline	417	(s)	407	0	265	0	327	0	535	49	--	--	10
Leaded	1	0	(s)	0	(s)	0	0	0	2	0	--	--	0
Unleaded	416	(s)	407	0	265	0	327	0	533	49	--	--	10
Finished Aviation Gasoline	0	0	0	0	(s)	0	(s)	0	(s)	0	--	--	0
Jet Fuel	157	6	147	12	109	11	103	0	113	0	--	--	6
Naphtha-Type Jet	1	0	1	0	2	0	1	0	2	0	--	--	0
Kerosene-Type Jet	155	6	145	12	108	11	102	0	111	0	--	--	6
Kerosene	24	0	6	0	1	0	6	0	(s)	0	--	--	0
Distillate Fuel Oil	501	4	357	(s)	280	(s)	308	(s)	207	(s)	--	--	1
Residual Fuel Oil	809	16	640	23	334	1	555	4	507	0	--	--	9
Naphtha Pet. Feedstock	139	-71	118	-62	111	-49	47	0	59	0	--	--	-36
Other Oils Pet. Feedstock	74	67	18	62	65	49	79	0	111	0	--	--	36
Special Naphthas	5	3	14	1	3	(s)	10	1	18	-2	--	--	1
Lubricants	12	0	14	0	11	0	7	0	3	13	--	--	3
Waxes	1	0	2	0	1	0	1	0	1	0	--	--	0
Petroleum Coke	1	0	5	0	1	0	2	0	1	0	--	--	0
Asphalt and Road Oil	25	0	21	(s)	19	(s)	20	0	35	(s)	--	--	(s)
Miscellaneous Products	2	(s)	2	0	2	(s)	1	(s)	3	0	--	--	(s)

(s) = Less than 500 barrels per day.

Note: • Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

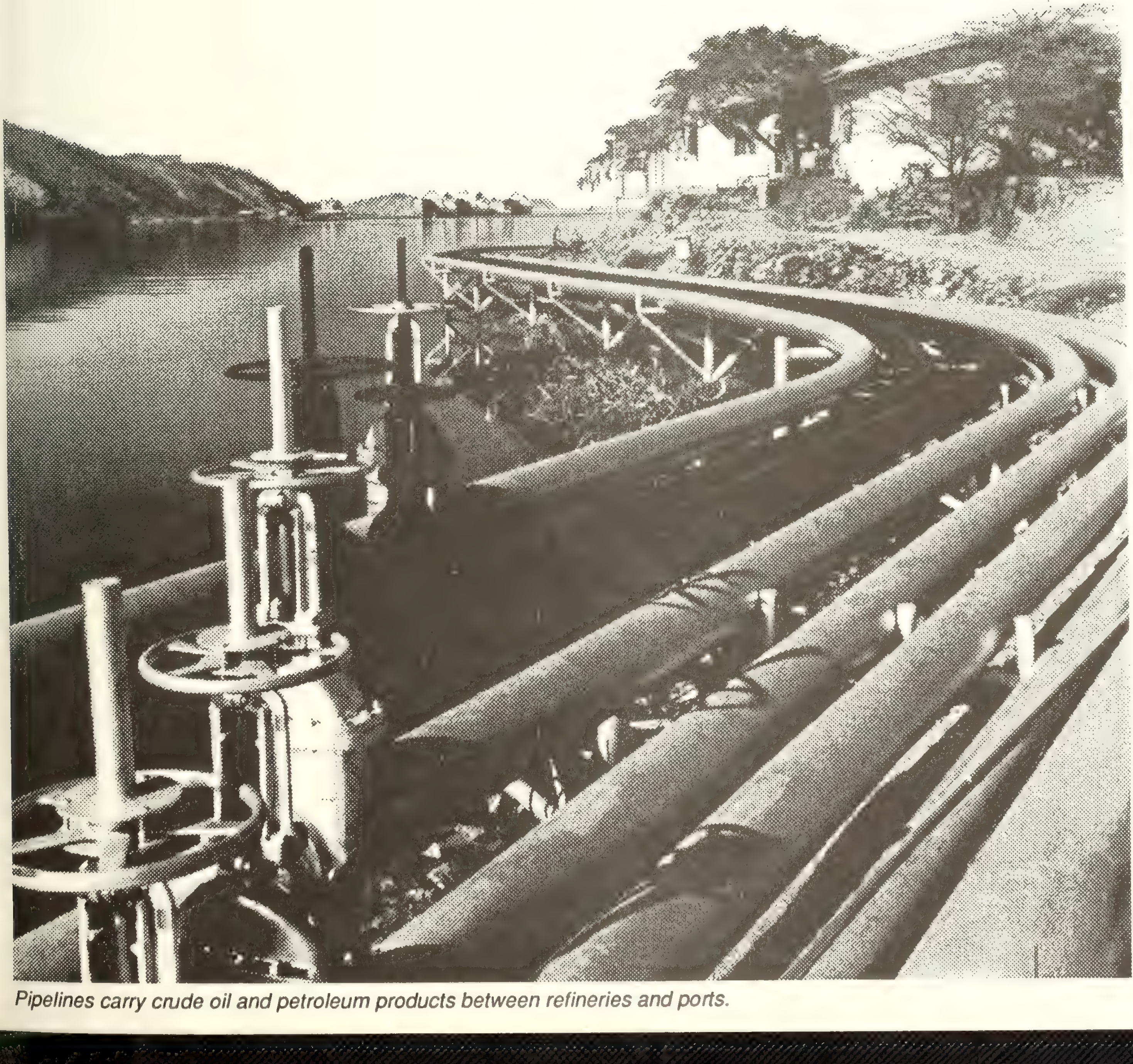
Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (excl. SPR)	**1,051,022**	**-3,802**	**1,058,003**	**-4,218**	**1,061,200**	**-1,640**	**1,056,496**	**-64**	**1,084,920**	**831**	**--**	**--**	**-1,779**
Crude Oil (excl. SPR)	352,267	-3,117	343,081	-3,484	373,655	-2,802	369,705	787	382,480	133	--	--	-1,697
Pentanes Plus	7,968	127	7,239	10	7,334	-76	7,091	23	7,279	4	--	--	18
LPGs	76,107	399	76,675	539	77,962	1,406	82,047	29	90,706	3	--	--	475
Ethane/Ethylene	23,585	147	24,511	479	24,158	-296	24,219	4	22,899	1	--	--	67
Propane/Propylene	32,979	105	32,171	692	31,103	1,526	31,705	0	35,584	-4	--	--	464
Normal Butane/Butylene	12,571	106	12,142	-218	14,739	199	17,857	-2	22,867	5	--	--	18
Isobutane	6,972	41	7,851	-414	7,962	-23	8,266	27	9,356	1	--	--	-74
Other Hydrocarbons	644	154	749	167	977	0	907	0	1,037	9	--	--	66
Unfinished Oils	103,511	-89	106,468	-101	109,780	-5	108,729	-12	116,582	44	--	--	-33
Motor Gas. Blend. Comp	40,350	-170	44,325	-214	42,133	0	39,126	-45	39,575	28	--	--	-80
Aviation Gas. Blend. Comp.	141	0	180	0	145	0	125	0	159	0	--	--	0
Finished Motor Gasoline	195,634	-86	201,341	8	186,056	-203	184,486	-72	178,416	222	--	--	-27
Leaded	17,828	-30	15,444	-146	13,559	-181	12,603	-20	11,906	-23	--	--	-80
Unleaded	177,806	-56	185,897	152	172,497	-22	171,883	-52	166,510	245	--	--	53
Finished Aviation Gasoline	1,976	-13	1,947	-1	1,843	-39	1,830	-30	1,884	0	--	--	-17
Jet Fuel	42,818	-141	46,389	-3	48,938	421	46,844	-272	46,832	-60	--	--	-11
Naphtha-Type Jet	6,381	1	6,336	1	7,082	-34	6,328	-29	6,853	0	--	--	-12
Kerosene-Type Jet	36,437	-142	40,053	-4	41,856	455	40,516	-243	39,979	-60	--	--	1
Kerosene	6,495	-44	5,693	-16	5,129	-16	5,194	0	5,501	0	--	--	-15
Distillate Fuel Oil	117,949	-262	112,224	-472	99,684	-768	99,459	-288	102,828	305	--	--	-297
Residual Fuel Oil	49,729	125	51,479	-395	46,190	117	48,993	-180	49,641	55	--	--	-56
Naphtha Pet. Feedstock	2,106	-5	2,292	-5	2,322	0	2,220	0	1,993	0	--	--	-2
Other Oils Pet. Feedstock	1,935	0	2,848	0	2,614	0	2,022	0	2,670	0	--	--	0
Special Naphthas	2,691	-93	2,844	-96	2,949	-4	2,699	-1	2,724	0	--	--	-39
Lubricants	13,597	-8	13,011	-19	12,264	2	12,353	0	12,256	65	--	--	8
Waxes	953	-2	1,032	-1	1,044	0	955	0	941	0	--	--	-1
Petroleum Coke	9,228	0	9,444	0	8,954	0	9,423	1	9,989	0	--	--	(s)
Asphalt and Road Oil	22,215	-100	25,957	103	28,519	303	29,873	-30	29,091	0	--	--	55
Miscellaneous Products	2,708	-477	2,785	-236	2,708	24	2,415	26	2,336	23	--	--	-128
Product Supplied	**16,968**	**84**	**17,024**	**59**	**17,083**	**-20**	**16,666**	**96**	**16,843**	**5**	**--**	**--**	**45**
Crude Oil	40	0	36	0	24	0	24	0	30	0	--	--	0
Pentanes Plus	156	3	161	8	128	5	128	-1	133	2	--	--	3
LPGs	1,660	-8	1,599	-26	1,620	-22	1,525	56	1,417	4	--	--	1
Ethane/Ethylene	462	(s)	431	-4	471	28	455	-5	495	(s)	--	--	4
Propane/Propylene	1,012	18	1,048	-11	993	-27	935	52	825	1	--	--	7
Normal Butane/Butylene	163	-30	117	-40	113	-12	112	10	101	2	--	--	-14
Isobutane	22	3	2	29	44	-12	23	-1	-4	1	--	--	4
Other Hydrocarbons	0	-10	0	-4	0	5	0	0	0	-1	--	--	-2
Unfinished Oils	-7	-23	-218	1	-219	13	-125	7	-161	-16	--	--	-3
Motor Gas. Blend. Comp	14	16	26	2	73	-6	51	1	119	-3	--	--	2
Aviation Gas. Blend. Comp.	0	0	2	0	(s)	0	0	0	0	0	--	--	0
Finished Motor Gasoline	6,675	-26	7,129	-4	7,325	8	7,116	(s)	7,304	39	--	--	3
Leaded	404	-7	472	4	443	1	420	-3	421	(s)	--	--	-1
Unleaded	6,272	-18	6,657	-8	6,881	7	6,696	3	6,884	39	--	--	5
Finished Aviation Gasoline	19	(s)	23	(s)	24	1	23	(s)	27	-1	--	--	0
Jet Fuel	1,551	10	1,468	6	1,423	-3	1,488	22	1,470	-9	--	--	5
Naphtha-Type Jet	182	-1	203	-1	165	1	196	-1	182	-1	--	--	(s)
Kerosene-Type Jet	1,369	11	1,265	7	1,257	-4	1,292	23	1,288	-8	--	--	6
Kerosene	113	1	130	-1	87	0	66	-1	41	0	--	--	(s)
Distillate Fuel Oil	3,177	6	3,250	7	3,265	11	3,059	-16	2,897	-19	--	--	-2
Residual Fuel Oil	1,561	45	1,424	41	1,202	-15	1,142	15	1,222	-1	--	--	17
Naphtha Pet. Feedstock	238	-50	237	-62	250	-49	184	0	201	0	--	--	-32
Other Oils Pet. Feedstock	257	92	226	104	319	49	371	0	350	0	--	--	49
Special Naphthas	62	5	46	1	43	-3	73	1	71	-2	--	--	(s)
Lubricants	160	(s)	185	(s)	180	-1	147	(s)	153	11	--	--	2
Waxes	16	(s)	17	0	15	(s)	17	0	16	0	--	--	0
Petroleum Coke	346	2	332	0	336	0	291	(s)	295	(s)	--	--	(s)
Asphalt and Road Oil	223	3	211	-7	280	-6	351	11	540	-1	--	--	(s)
Still Gas	642	2	676	0	649	0	670	0	650	1	--	--	1
Miscellaneous Products	64	15	66	-8	58	-8	66	(s)	68	(s)	--	--	(s)

(s) = Less than 500 barrels per day.

Note: • Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr.60^{\circ}F/60^{\circ}F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 F to 750 F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and alcohol.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C6H6), present to a minor degree in most crude oils. Some important

products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9 F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1 F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 F at the 10-percent recovery point and 550 F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 F and 640 F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on

the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of -127.48 F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

> 1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.
>
> 2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit to be reprocessed are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 F to 1000 F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico,

the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, ($C6H14$). It is a colorless liquid that boils at a temperature of 156.2 F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane (C4), an alkylation process feedstock, and normal pentane and hexane into isopentane (C5) and isohexane (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 F at the 10-percent recovery point, a final boiling point of 572 F, and a minimum flash point of 100 F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 F at the 10-percent recovery point and a final maximum boiling point of 572 F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 F to 650 F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> *Paraffinic.* Includes all grades of bright stock and neutrals with a Viscosity Index>75.
>
> *Naphthenic.* Includes all lubricating oil base stocks with a Viscosity Index<75
>
> *Note:* The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> *Exceptions:* Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted pariffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158 F at the 10-percent recovery point and from 365 to 374 F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded

gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogens, and alcohol.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 F.

Naphtha Less Than 401 F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 F at the 20-percent recovery point and 470 F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ramjet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle

capacity and is measured in barrels per calendar day or barrels per stream day.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, oxygenates, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401 F. See Petrochemical Feedstocks.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401 F" and "Other Oils Equal To or Greater Than 401 F."

> ***Naphtha Less Than 401 F.*** A naphtha with a boiling range of less than 401 F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401 F.*** Oils with a boiling range equal to or greater than 401 F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus

imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids, other hydrocarbons and alcohol, and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone".

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

> ***Microcrystalline Wax.*** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 F (D1321)-60 maximum. Viscosity at 210 F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.
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>
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Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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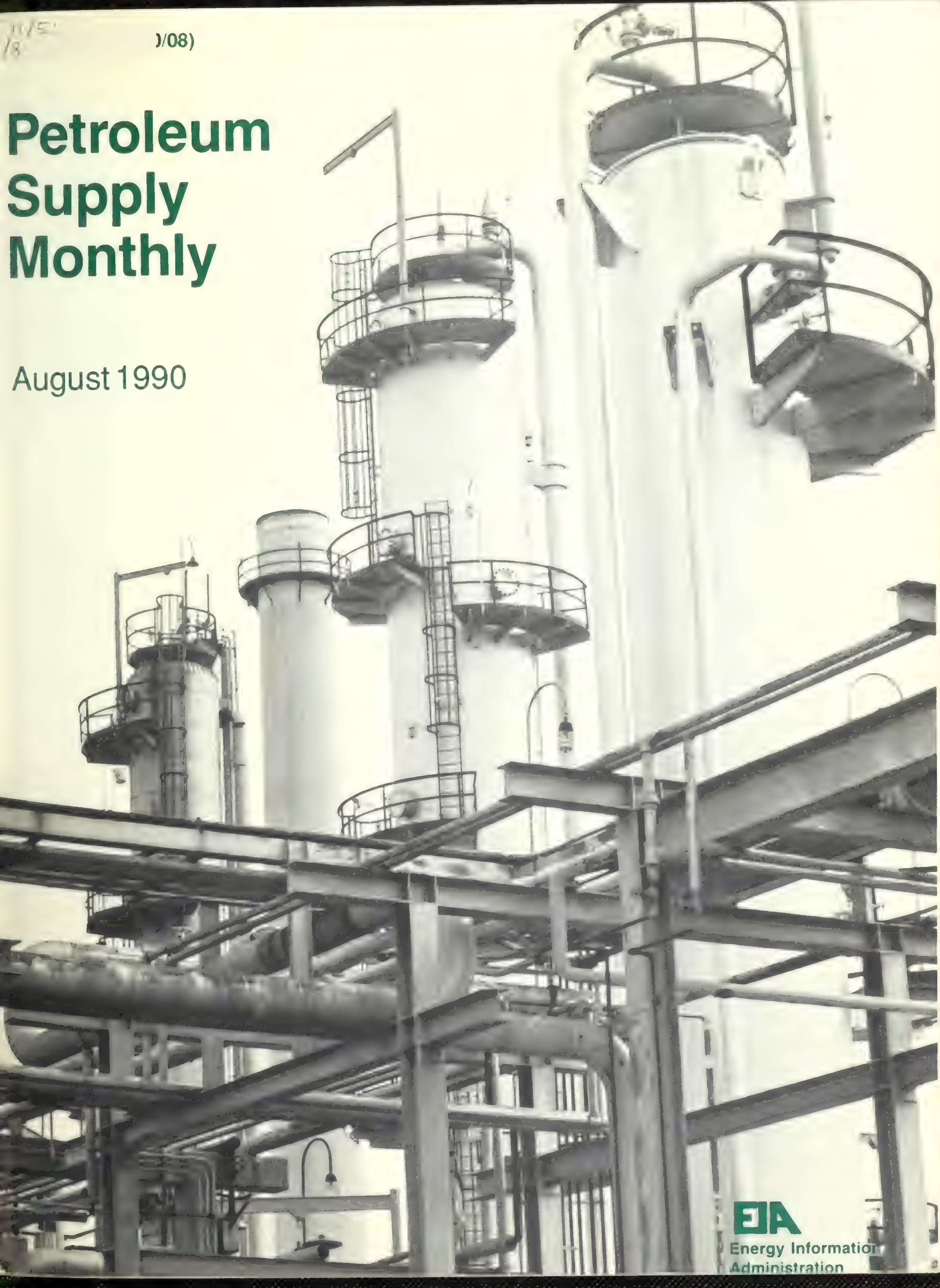
August 1990



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Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in Primary Supply. Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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Western Countries Lead U.S. Petroleum Import Sources	January 1986
U.S. Petroleum Exports Show Slight Upturn	January 1986
Motor Gasoline Trends	February 1986
Oil Imports from Saudi Arabia	February 1986
Refinery Capacity Trends and Outlook	March 1986
Timeliness and Accuracy of Petroleum Supply Data	April 1986
Midyear Petroleum Review	May 1986
Winter 1986-1987 Distillate Fuel Outlook	July 1986
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Comparison of Independent Statistics on Petroleum Supply	September 1986
U.S. Petroleum Developments: 1986	November 1986
U.S. Petroleum Imports, 1986 Regional Highlights	December 1986
Leading Petroleum Importers, 1986	December 1986
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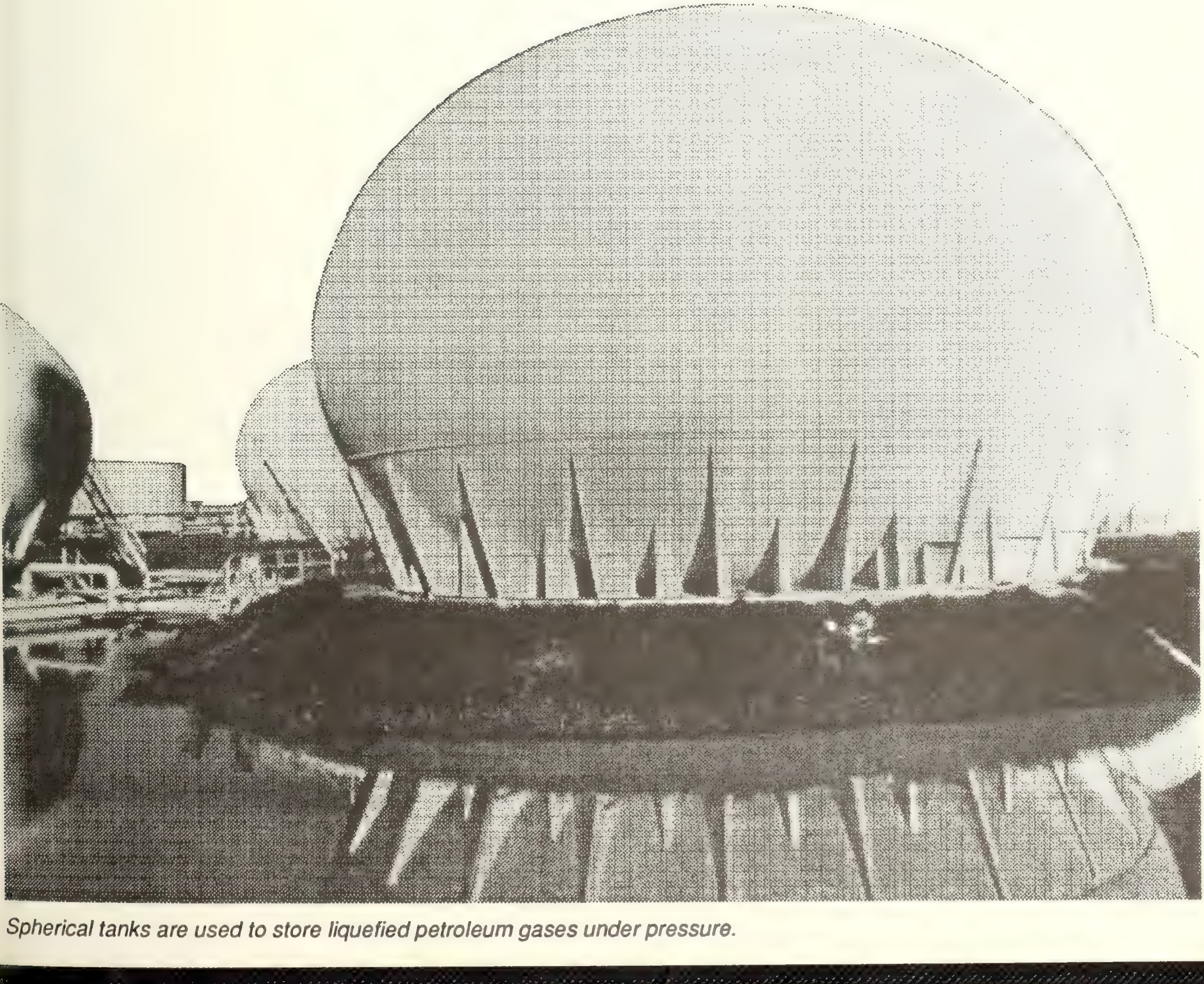
Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

The Iraqi invasion of Kuwait on August 2, 1990, immediately affected the U.S. petroleum market because of the quick escalation in petroleum prices and concerns about future supplies. Despite this, total demand for petroleum products (measured as product supplied) in August 1990 showed a typical end-of-summer increase to 17.9 million barrels per day (Table H1). The most notable increases were in demand for motor gasoline, distillate fuel oil, and kerosene-type jet fuel.

The persistence of low stock levels for motor gasoline and propane in August prompted concern about supplies. Despite unusually low motor gasoline stocks during the peak summer driving season, motor gasoline supplies were adequate to fill August demand. Propane supplies are of particular concern, however, because of the potential for shortages during the coming winter if a demand surge similar to that generated by the December 1989 frigid weather should occur. Propane supplies are being surveyed and results published weekly, along with information about other winter heating fuels, in the Energy Information Administration's *Winter Fuels Report.* The Report will be published weekly between October 5, 1990, and April 5, 1991.

Information about U.S. crude oil supplies and petroleum prices in the midst of the Persian Gulf crisis begins on page xvi.

Other August 1990 highlights include the following:

- Despite a sharp rise in the retail price of motor gasoline after the Iraqi invasion of Kuwait, demand increased in August. Stocks remained well below normal levels for this time of year.

- Distillate fuel oil demand increased substantially as retailers escalated the buildup of supplies in anticipation of even higher prices in future months. Stocks were the highest for the end of August since 1986, indicating that supplies should be sufficient to meet demand surges during the coming winter.

The increase in kerosene-type jet fuel prices since Iraq's invasion of Kuwait on August 2, 1990 prompted U.S. airlines to impose a 5.3 percent increase on domestic air fares effective August 30, 1990.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1990			1989	January — August	
	August	July	Difference[a]	August	1990	1989
Products Supplied	**17.9**	**16.9**	**1.1**	**17.4**	**17.1**	**17.2**
Finished Motor Gasoline	7.8	7.4	0.4	7.7	7.3	7.3
Distillate Fuel Oil	3.2	2.7	0.5	3.0	3.1	3.1
Residual Fuel Oil	1.3	1.3	(s)	1.1	1.3	1.4
Liquefied Petroleum Gases	1.4	1.4	(s)	1.4	1.5	1.6
Other Petroleum Products[b]	4.3	4.1	0.2	4.1	3.9	3.8
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	**14.1**	**14.2**	**-0.1**	**13.9**	**13.5**	**13.4**
Operable Utilization Rate (percent)	**91.4**	**92.6**	**-1.2**	**89.3**	**88.3**	**86.4**
Imports	**8.6**	**8.9**	**-0.3**	**8.6**	**8.5**	**8.1**
Crude Oil	**6.4**	**6.8**	**-0.4**	**6.6**	**6.3**	**5.8**
Strategic Petroleum Reserve	0.1	0.0	0.1	(s)	(s)	0.1
Other	6.3	6.8	-0.5	6.5	6.2	5.7
Products	**2.1**	**2.1**	**(s)**	**2.0**	**2.2**	**2.3**
Finished Motor Gasoline	0.3	0.4	-0.1	0.4	0.4	0.4
Distillate Fuel Oil	0.3	0.2	0.1	0.3	0.3	0.3
Residual Fuel Oil	0.6	0.5	(s)	0.5	0.6	0.7
Liquefied Petroleum Gases	0.2	0.2	0.1	0.2	0.2	0.2
Other Petroleum Products[b]	0.7	0.8	(s)	0.7	0.8	0.7
Exports	**0.8**	**0.7**	**0.2**	**1.0**	**0.8**	**0.9**
Crude Oil	0.1	0.1	(s)	0.2	0.1	0.2
Products	0.8	0.6	0.2	0.8	0.7	0.7
Total Net Imports	**7.7**	**8.2**	**-0.5**	**7.6**	**7.7**	**7.2**
Stock Change[c]	**-0.3**	**0.9**	**-1.2**	**0.2**	**0.5**	**0.2**
Crude Oil	-0.2	-0.2	-0.1	0.3	0.2	0.1
Products	-0.1	1.0	-1.1	-0.1	0.3	0.1
Total Stocks at End of Period (million barrels)	**1,701**	**1,711**	**-10**	**1,654**	--	--
Crude Oil	**959**	**966**	**-7**	**916**	--	--
Strategic Petroleum Reserve	590	587	3	575	--	--
Other	370	380	-10	341	--	--
Products	**742**	**744**	**-3**	**738**	--	--
Finished Motor Gasoline	174	180	-7	182	--	--
Distillate Fuel Oil	131	125	6	116	--	--
Residual Fuel Oil	48	49	-1	45	--	--
Liquefied Petroleum Gases	123	112	10	126	--	--
Other Petroleum Products[b]	266	278	-11	269	--	--

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly,* see Explanatory Note 5.

- Troop deployment to the Persian Gulf and August vacations combined to push demand for kerosene-type jet fuel upward. The loss of Iraqi and Kuwaiti supplies on the world market caused prices to escalate, resulting in fare increases for U.S. domestic flights. Stocks remained relatively high, despite the increase in demand.

- Total stocks of liquefied petroleum gases (LPGs) were slightly below year-earlier levels, but propane and ethane stocks were considerably lower. Butane stocks, on the other hand, were much higher.

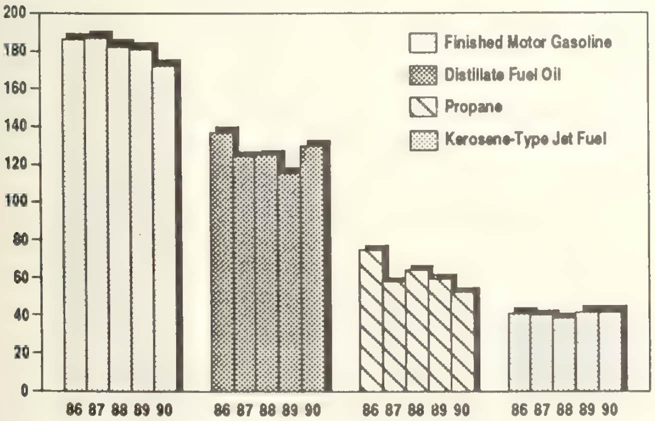
- A moderate decline in gross imports of crude oil, excluding the Strategic Petroleum Reserve (SPR), was largely due to reductions from Persian Gulf countries. Partially compensating for the decline in imports were a slight increase in domestic production and a moderate drawdown of stocks. Stocks (excluding the SPR) were the highest for the end of August since 1980.

- The operable refinery utilization rate remained very high, indicating that process turnarounds from motor gasoline to distillate fuel oil production, which usually occur during August, were delayed this year.

Motor Gasoline

Demand for motor gasoline increased moderately in August to 7.8 million barrels per day. This was slightly higher than in August 1989, as the summer driving season reached its peak. The increase occurred even though the average retail price was markedly higher than in July 1990. The average retail price for motor gasoline of $1.25 per gallon in August was 11 cents per gallon higher than in July,[1] but vacation driving plans made before the Iraqi invasion of Kuwait kept demand for motor gasoline high.

Figure H1. End-of-August Stocks of Selected Petroleum Products
(Million Barrels)



Sources: Energy Information Administration, *Petroleum Supply Annual,* Volume 2, 1986 through 1989, Table 2; *Petroleum Supply Monthly,* August 1990, Table 2.

Stocks of finished motor gasoline remained low in August, as withdrawals to fill the high demand resulted in a moderate decline to 174 million barrels. In recent years, stocks at the end of August were between 8 and 14 million barrels higher than this year's level (Figure H1). Motor gasoline stocks have been below year-earlier levels since December 1989, when severe cold weather caused refining problems which led to an unusual decline in stocks. Stocks were particularly low during the peak driving months of July and August 1990.

Distillate Fuel Oil

As with motor gasoline, distillate fuel oil prices shot upward in August. Nevertheless, demand increased substantially to 3.2 million barrels per day. The increase was partly due to a buildup in secondary stocks by heating oil marketers in anticipation of even higher prices in future months.

The buildup in distillate fuel oil stocks continued in August in preparation for the winter heating season. Stocks of 131 million barrels were the highest for the end of August since 1986, indicating that supplies should be sufficient to meet demand surges this winter. In PAD District I, where winter demand for distillate fuel oil is the greatest, end-of-August stocks were 20 percent higher than a year earlier.

Kerosene-Type Jet Fuel

Increased jet fuel use for airlift operations associated with the deployment of U.S. military forces in the Persian Gulf, and the usual August vacation season, combined to push demand for kerosene-type jet fuel upward in August. Demand of 1.3 million barrels per day was moderately above the average for the previous 7 months of 1990. The additional jet fuel requirements, coupled with the decline in Mideast supplies on the world market, sparked a substantial increase in kerosene-type jet fuel prices during August. The New York Harbor spot price escalated from 61 cents per gallon to $1.06 per gallon between August 1 and August 23, 1990, before drifting downward to 80 cents at the end of the month. On August 22, Saudi Arabia announced a curtailment of jet fuel deliveries to the Far East in order to supply U.S. and allied forces with military fuel. U.S. airlines were immediately affected by the price escalation because they have little capacity to stockpile jet fuel as a hedge against rising prices or supply disruptions. The airlines imposed a 5.3-percent increase on domestic airfares effective August 30, 1990, to help alleviate the effects of the price rise on airline operating costs.[2]

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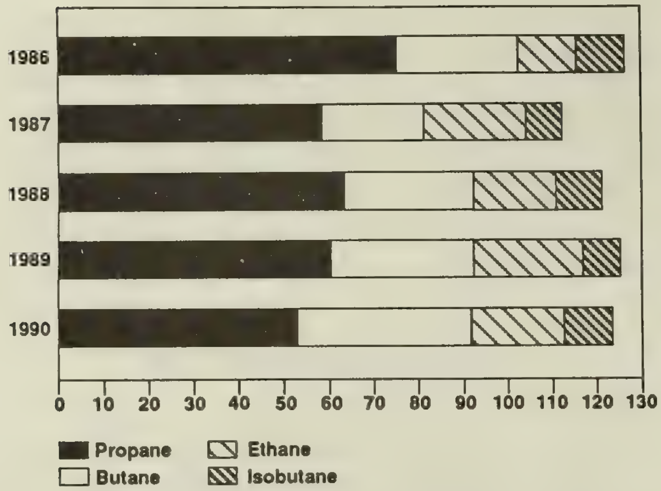
[1] Energy Information Administration, *Weekly Petroleum Status Report,* October 12, 1990, Table 11.

[2] "Fares to Rise on Foreign Flights," *The New York Times,* September 5, 1990, p. D1.

Figure H2. August Ending Stocks of Liquefied Petroleum Gases
(Million Barrels)



Sources: Energy Information Administration, *Petroleum Supply Annual,* Volume 2, 1986 through 1989, Table 2; *Petroleum Supply Monthly,* August 1990, Table 2.

Stocks of kerosene-type jet fuel remained relatively high at 43 million barrels at the end of August. Stocks at the end of August have fluctuated between 40 and 42 million barrels in recent years. Refinery production was sufficient to meet most of the increased demand during August, preventing a significant drawdown in primary stocks.

Liquefied Petroleum Gases

While total LPG stocks of 123 million barrels were only 3 million barrels below year-earlier levels, stocks of individual components were vastly different from the August 1989 level. Propane stocks increased from the July level, but were still well below the end-of-August level for previous years (Figure H2). Earlier purchases by distributors this year to take advantage of low prices and to avoid getting caught short this winter contributed to the low primary stocks of propane this summer.

Butane stocks, however, were even higher at the end of August than a year earlier. Stockbuilding by refiners, also to take advantage of attractive prices earlier this summer in preparation for winter motor gasoline blending, contributed to the rise in primary stocks of butane. Ethane stocks at the end of August were considerably below year-earlier levels, as ethane demand at ethylene plants increased in response to escalating prices for naphtha and gas oil. Stocks of ethane remained within normal levels.

Crude Oil

The upward movement in the world price of crude oil that began in June continued in August, approaching $29 per barrel before declining to $26.71 on August 31.[3] A month earlier the price was below $17 per barrel. The sharp escalation in price was largely the result of the sudden uncertainty of future supplies from the Middle East after the Iraqi invasion of Kuwait on August 2. A moderate decline in imports (excluding the SPR) was largely due to reductions from Persian Gulf countries. Interestingly, a decline in imports from Iraq was offset by higher imports from Kuwait.

Domestic production of crude oil increased somewhat for the second consecutive month in August to an estimated 7.2 million barrels per day, primarily because of increases from Alaska. Alaskan production was much higher than originally planned because extensive maintenance scheduled for North Slope oil fields and the Alyeska Pipeline were curtailed after the Iraqi invasion of Kuwait.

The increase in production was not enough to offset the decline in imports, however. Consequently, crude oil stocks (excluding the SPR) were drawn down to 370 million barrels, 10 million barrels below the level at the end of July 1990. Despite the decline, crude oil stocks were the highest for the end of August since 1980.

Refinery Utilization

The operable refinery utilization rate of 91.4 percent during August was slightly lower than the rate in July 1990, but refinery production of both motor gasoline and distillate fuel oil increased. The high utilization rate indicates that process turnarounds from motor gasoline to distillate fuel oil production, which usually occur during August, were delayed this year. Gross inputs (crude and other oils) to atmospheric crude oil distillation units declined slightly in August to 14.2 million barrels per day. The operating utilization rate, which reflects refinery utilization if all idle capacity is removed, decreased slightly to 94.5 percent in August 1990 (Table H2). The high utilization rates of recent months cannot be sustained for extended periods because refineries become prone to equipment failures and accidents. In August, a fire at Shell's Deer Park, Illinois, refinery and a breakdown at the Lyondell refinery in Houston, Texas, resulted in partial shutdowns. Both refineries were operating at slightly reduced capacity by the end of August.

News Highlights

Persian Gulf Crisis Affects U.S. Petroleum Prices and Crude Oil Supplies

The potentially explosive Persian Gulf situation, now in its third month, has had a major impact on petroleum prices, and on the type of crude oil entering U.S. supplies. Somewhat

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[3] Energy Information Administration, *Weekly Petroleum Status Report,* August 31, 1990, Table 12.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1989-1990
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1989												
Gross Refinery Inputs	13,502	12,974	13,131	13,123	13,566	14,067	13,957	14,024	13,898	13,533	13,549	13,244
Operable Refinery Capacity	15,655	15,671	15,669	15,687	15,692	15,698	15,698	15,706	15,722	15,722	15,732	15,761
Idle Capacity[1]	**643**	**707**	**738**	**743**	**683**	**575**	**602**	**632**	**759**	**775**	**626**	**644**
Idle Three Months or Less	175	233	225	180	140	46	50	80	211	201	51	66
Idle More than Three Months	468	474	513	563	543	529	552	552	548	574	575	578
Operating Capacity[2]	15,012	14,964	14,931	14,944	15,008	15,124	15,097	15,075	14,963	14,946	15,106	15,117
Utilization Rate (percent)												
Operable Capacity	86.2	82.8	83.8	83.7	86.5	89.6	88.9	89.3	88.4	86.1	86.1	84.0
Operating Capacity	89.9	86.7	87.9	87.8	90.4	93.0	92.4	93.0	92.9	90.6	89.7	87.6
1990												
Gross Refinery Inputs	13,628	13,653	13,047	13,234	13,570	13,886	14,397	14,225	NA	NA	NA	NA
Operable Refinery Capacity	15,533	15,540	15,498	15,496	15,527	15,527	15,543	15,559	NA	NA	NA	NA
Idle Capacity[1]	**550**	**578**	**712**	**729**	**621**	**621**	**507**	**511**	**NA**	**NA**	**NA**	**NA**
Idle Three Months or Less	135	154	293	258	133	130	34	11	NA	NA	NA	NA
Idle More than Three Months	415	424	419	471	488	491	473	500	NA	NA	NA	NA
Operating Capacity[2]	14,983	14,962	14,786	14,767	14,906	14,906	15,036	15,048	NA	NA	NA	NA
Utilization Rate (percent)												
Operable Capacity	87.7	87.9	84.2	85.4	87.4	89.4	92.6	91.4	NA	NA	NA	NA
Operating Capacity	91.0	91.3	88.2	89.6	91.0	93.2	95.8	94.5	NA	NA	NA	NA

[1] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

[2] Operating capacity equals the operable capacity less the total idle capacity.

NA= Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly,* 1990 issues, Table 18; *Petroleum Supply Annual,* Volume 2, 1989, Table 16; Form EIA- 810, "Monthly Refinery Report."

heavier crude oils are being supplied by Alaska and by other countries that recently increased production to offset the loss of lighter crude oils from Iraq and Kuwait.

Crude Oil Production Increases

The estimated 4.3 million barrels per day of Iraqi and Kuwaiti oil production that was lost to the world market because of the international trade embargo was partially offset in September by a total increase of about 3.0 million barrels per day of production, provided by several countries. Most of the offsetting production came from Saudi Arabia, with an increase of over 2 million barrels. Saudi Arabia plans to boost its production from its pre-invasion level of 5.3 million barrels per day to 8.0 million barrels per day by the end of the year.[4] Increases from Venezuela, Iran, Nigeria, and Libya also helped to make up some of the lost oil. Additional production increases to further offset the shortfall from Iraq and Kuwait are expected in October.[5]

The increases in production from members of the Organization of Petroleum Exporting Countries (OPEC) brought total OPEC crude oil production in September to about 22.5 million barrels per day, compared with 23.5 million barrels per day in July 1990, the last full month before the invasion.[6]

Refinery Capacity

The heavier, sour crude oils yield lower amounts of light-end products than do lighter crudes, and require further processing at downstream conversion units, which increases production costs. The additional processing required for these heavier crude oils has been of some concern because of the strain placed on domestic refining capacity, which has been operating at near maximum levels in recent months. The refining industry cannot operate at such high capacity utilization rates for an extended period. In doing so, maintenance may be postponed and refineries become prone to breakdowns, fires, and other problems.

Refining problems associated with heavy crude oil are more acute now because of the loss of sophisticated refining capacity in Kuwait due to the embargo, and because of the diversion of some refined products in Saudi Arabia and the United Arab Emirates from commercial customers, to supply fuel to military forces in the area. Before the invasion, excess OPEC refining capacity could be relied upon for additional petroleum products in times of increased demand. During the winter in early 1990, the United States increased its imports of

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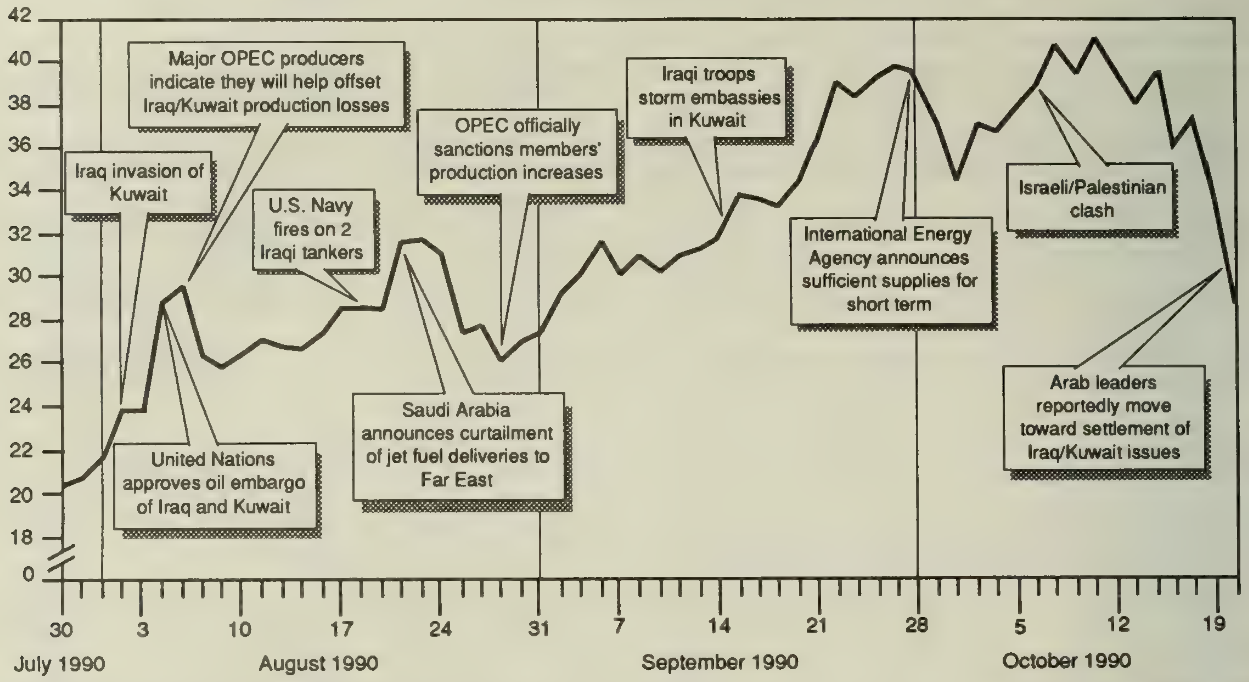
[4] "Saudis to Accelerate Oil Production Plans," *The Washington Post,* October 12, 1990, pp. F1 and F4.

[5] Energy Information Administration, *Energy Situation Analysis Report,* October 17, 1990, Table 1.

[6] "OPEC's Increase In Output, "*The New York Times,* October 9, 1990, p. D25.

Figure H3. Mideast Events and New York Spot Market Prices for West Texas Intermediate Crude Oil
(Dollars per Barrel)



Note: Weekends and holidays are not shown.
Source: *Reuters News Service,* daily issues for the period.

distillate fuel oil and jet fuel from Saudi Arabia, and distillate fuel oil from Kuwait. Such incremental imports may not be available this coming winter.

Prices

The embargo of oil from Iraq and Kuwait continues to affect crude oil and petroleum product prices in the United States. The Cushing spot price for West Texas Intermediate crude oil exceeded $41 per barrel on October 11, 1990, amid concern about tight winter supplies (Figure H3). This was 90 percent higher than the price on August 1, the day before the Iraqi invasion of Kuwait. Spot prices for refined products increased, also. On October 16, the New York spot market price for regular unleaded motor gasoline was 51 percent higher than before the invasion; the spot price for No. 2 heating oil was 72 percent higher; and kerosene-type jet fuel was 122 percent higher than the price on August 1 (Table H3). Uncertainty about future supplies if the Persian Gulf crisis persists into the winter, when demand for petroleum products will be greater, has been a primary force behind the price escalation. The United States has not experienced shortages, and demand for major products was at a normal seasonal level in August and September, despite the markedly higher prices. Preliminary data for the first 2 weeks in October indicate that only motor gasoline demand showed a notable decline, compared with demand in October 1989.[7]

Table H3. Spot Prices for Selected Petroleum Products
(Cents per Gallon)

Commodity	1990 Aug.1	1990 Oct.16	Percent Change
Unleaded Regular Motor Gasoline	67.25	101.65	51.2
No. 2 Heating Oil	59.83	103.13	72.4
Kerosene-Type Jet Fuel	60.83	135.00	121.9

Source: *Reuters News Service*, daily issues.

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[7] Energy Information Administration, *Weekly Petroleum Status Report*, October 12, 1990, Tables 9 and 14.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]		Petroleum Products Supplied	Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products		Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	10,975	9,208	1,738	-11	146	17,308	1,008
1974 Average	10,498	8,774	1,688	62	117	16,653	[h] 1,074
1975 Average	10,045	8,375	1,633	[h] 17	[h] 15	16,322	1,133
1976 Average	9,774	8,132	1,603	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	[h] 1,392
1981 Average	10,230	8,572	1,609	[h] 290	[h] -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	[h] 1,430
1983 Average	10,299	8,688	1,559	[h] 214	[h] -234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 January	9,876	8,250	1,579	-43	-294	17,403	1,597
February	10,018	8,374	1,605	133	-868	17,760	1,576
March	10,071	8,374	1,636	219	-748	17,612	1,559
April	9,946	8,288	1,618	190	445	16,561	1,578
May	9,899	8,229	1,627	96	1,048	16,197	1,614
June	9,833	8,170	1,616	43	-109	17,059	1,612
July	9,713	8,040	1,618	-261	819	16,695	1,629
August	9,762	8,079	1,616	-488	307	17,482	1,624
September	9,575	7,895	1,621	-83	245	17,072	1,628
October	9,737	8,023	1,661	399	-333	17,580	1,630
November	9,751	8,023	1,666	3	25	17,620	1,631
December	9,641	7,942	1,634	-188	-911	18,365	1,597
Average	**9,818**	**8,140**	**1,625**	**1**	**-29**	**17,283**	--
1989 January	9,678	7,937	1,664	179	563	17,269	1,620
February	9,441	7,788	1,607	47	-733	17,920	1,601
March	9,284	7,575	1,650	-127	-924	17,989	1,568
April	9,501	7,772	1,674	494	413	16,624	1,596
May	9,498	7,816	1,620	271	598	16,546	1,623
June	9,188	7,624	1,507	-434	-64	17,497	1,608
July	9,055	7,444	1,541	148	1,182	16,453	1,649
August	9,106	7,544	1,504	283	-104	17,360	1,654
September	9,096	7,548	1,480	-144	577	16,795	1,667
October	8,983	7,453	1,478	73	-378	17,304	1,658
November	9,084	7,536	1,483	541	-367	17,311	1,663
December	8,734	7,337	1,343	-302	-2,335	18,858	1,581
Average	**9,219**	**7,613**	**1,546**	**86**	**-129**	**17,325**	--
1990 January	E 9,113	E 7,522	1,525	377	1,189	16,968	1,632
February	E 9,093	E 7,465	1,558	-316	577	17,024	1,639
March	E 8,986	E 7,394	1,519	1,030	-883	17,083	1,643
April	E 8,883	E 7,331	1,481	-94	-25	16,666	1,640
May	E 8,838	E 7,259	1,499	501	505	16,843	1,671
June	E 8,602	E 7,076	1,453	75	348	17,112	1,684
July	E 8,694	E 7,144	1,480	-152	1,019	16,856	1,711
August*	RE 8,842	RE 7,215	R 1,562	-227	R -92	R 17,936	R 1,701
September**	PE 8,575	PE 7,041	E 1,462	E *-655*	E *688*	E *16,852*	E *1,705*
9-Mo. Average	PE 8,846	PE 7,271	E 1,504	E 67	E 368	E 17,040	--
1989 9-Mo. Average	9,316	7,671	1,583	81	176	17,155	--
1988 9-Mo. Average	9,854	8,188	1,615	-23	100	17,091	--

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations.

See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[g]
	Thousand Barrels per Day						
1973 Average	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 Average	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 Average	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 Average	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 Average	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 Average	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 Average	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	**631**	**5,439**
1987 Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 January	7,181	4,662	2,519	885	206	679	6,296
February	7,256	4,650	2,605	864	146	718	6,392
March	6,944	4,868	2,076	834	213	622	6,110
April	7,270	5,167	2,103	676	114	562	6,594
May	7,469	5,339	2,130	814	138	676	6,655
June	7,239	5,322	1,917	938	138	800	6,301
July	7,297	5,100	2,197	826	186	640	6,471
August	7,386	5,089	2,296	814	152	661	6,572
September	7,506	5,212	2,294	673	119	554	6,833
October	7,830	5,551	2,279	732	166	566	7,098
November	7,714	5,070	2,644	717	148	569	6,997
December	7,727	5,230	2,497	1,008	129	879	6,719
Average	**7,402**	**5,107**	**2,295**	**815**	**155**	**661**	**6,587**
1989 January	8,255	5,661	2,594	761	137	624	7,494
February	8,032	5,305	2,727	875	208	666	7,157
March	7,456	5,035	2,421	860	156	704	6,596
April	8,078	5,750	2,328	810	139	670	7,268
May	7,778	5,729	2,049	791	131	661	6,986
June	7,977	5,976	2,002	975	243	732	7,002
July	8,369	6,214	2,155	780	69	711	7,589
August	8,560	6,565	1,995	967	162	805	7,593
September	8,002	6,028	1,975	655	32	623	7,347
October	8,301	6,187	2,115	791	61	730	7,511
November	8,341	6,171	2,170	975	120	855	7,366
December	7,579	5,463	2,116	1,067	247	821	6,512
Average	**8,061**	**5,843**	**2,217**	**859**	**142**	**717**	**7,202**
1990 January	9,147	6,206	2,941	710	132	578	8,437
February	8,306	5,858	2,447	822	102	720	7,483
March	7,925	6,125	1,800	881	133	748	7,045
April	7,758	5,740	2,018	761	112	649	6,997
May	8,738	6,438	2,300	690	112	578	8,048
June	8,690	6,413	2,276	804	88	715	7,886
July	8,893	6,812	2,081	696	89	606	8,197
August*	R 8,558	R 6,432	R 2,127	R 850	R 64	R 785	R 7,709
September**	E *7,755*	E *5,915*	E *1,840*	E 767	E 88	E 679	E 6,988
9-Mo. Average	E **8,424**	E **6,222**	E **2,202**	E **775**	E **102**	E **673**	E **7,649**
1989 9-Mo. Average	**8,057**	**5,811**	**2,246**	**830**	**141**	**689**	**7,227**
1988 9-Mo. Average	**7,283**	**5,046**	**2,236**	**814**	**157**	**656**	**6,469**

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

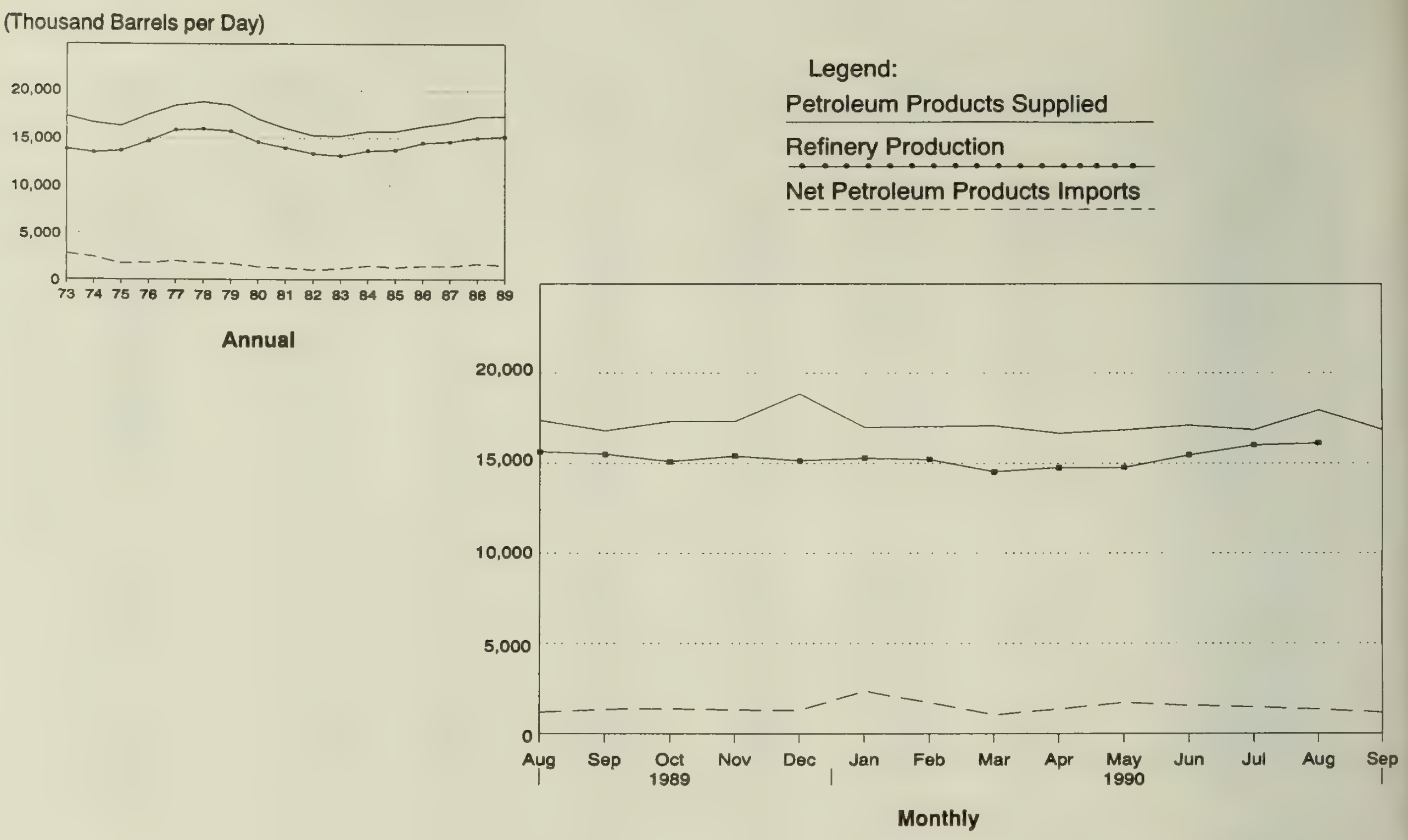

Figure S2. Petroleum Products Supplied

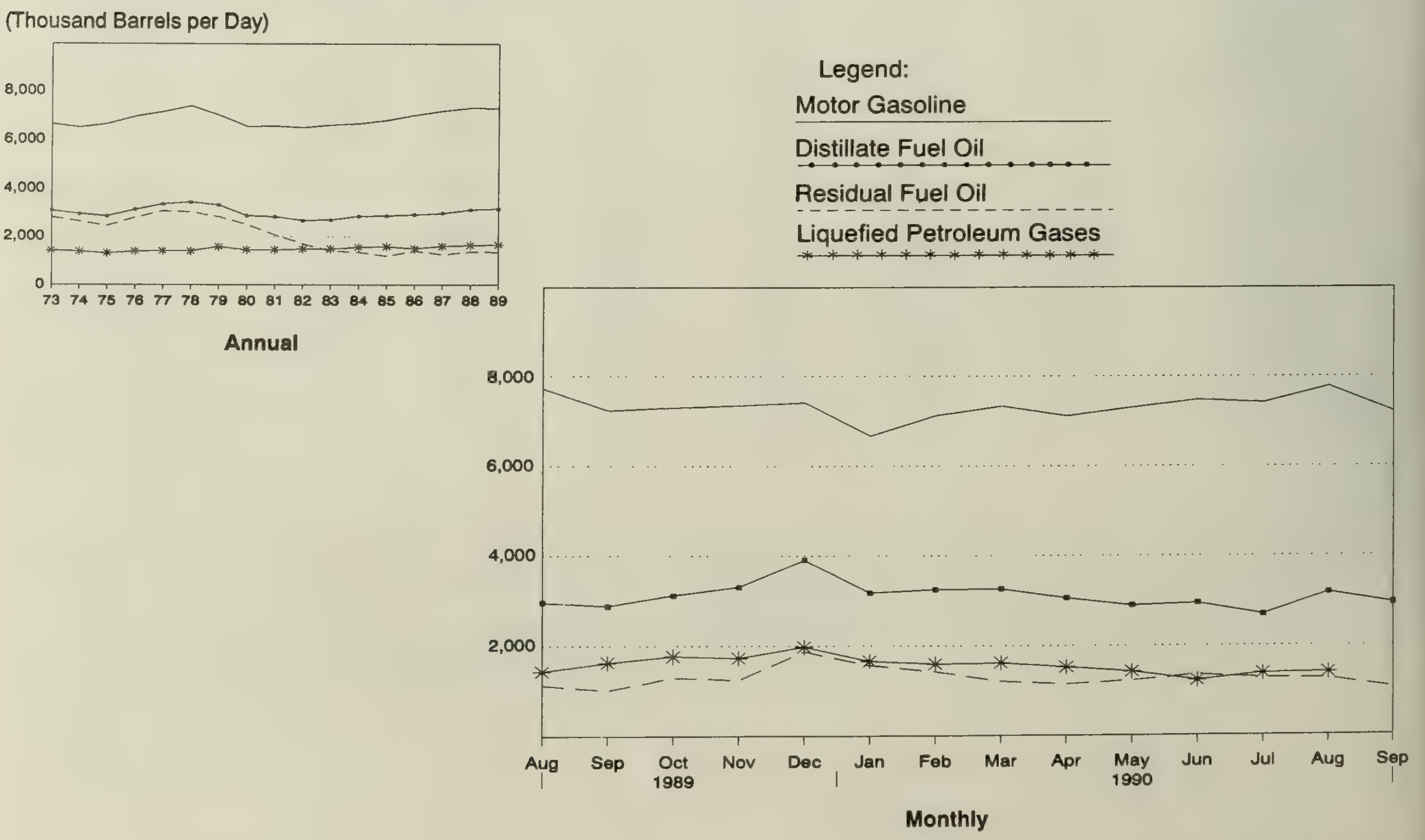

Figure S3. Crude Oil Supply and Disposition

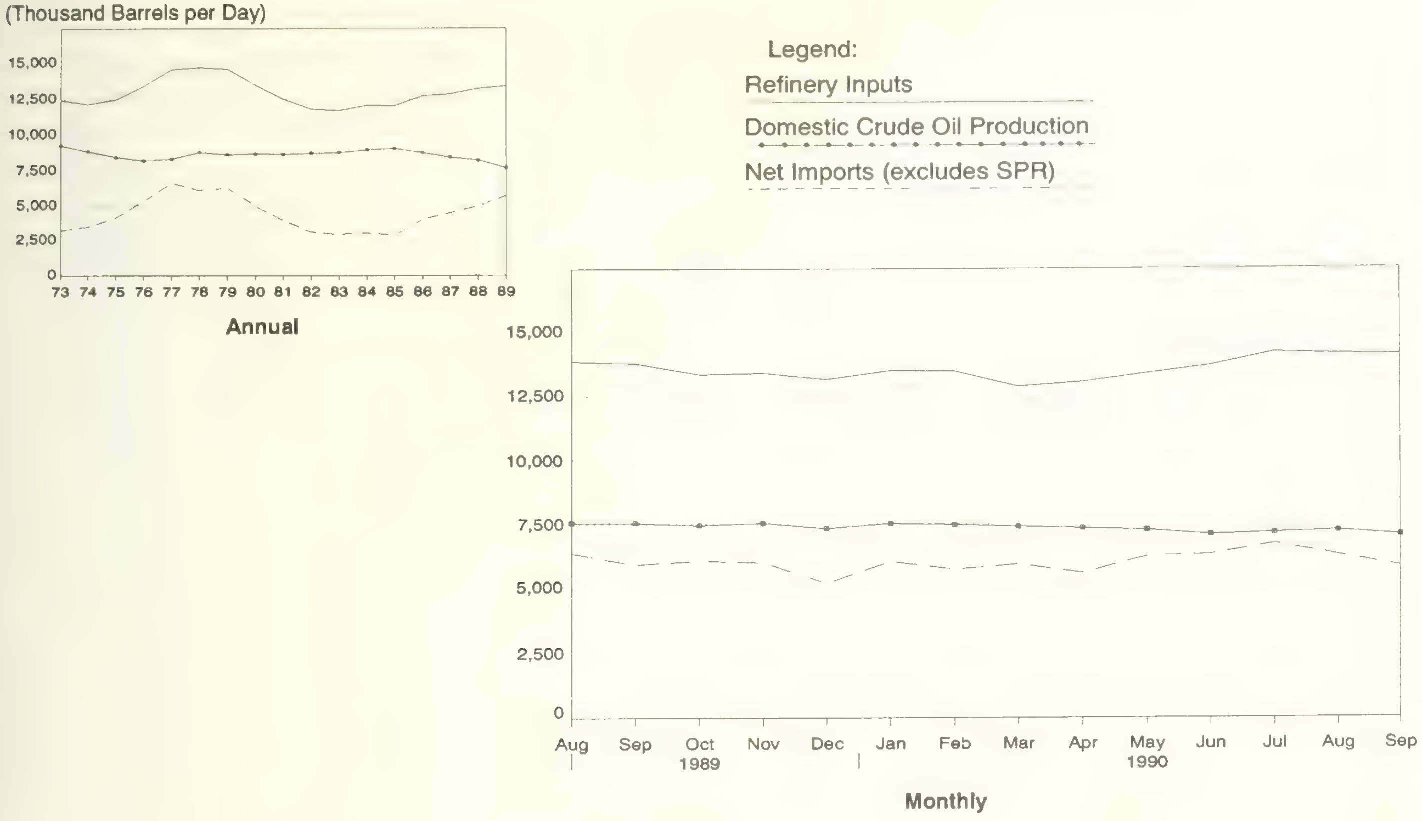

Figure S4. Crude Oil Ending Stocks

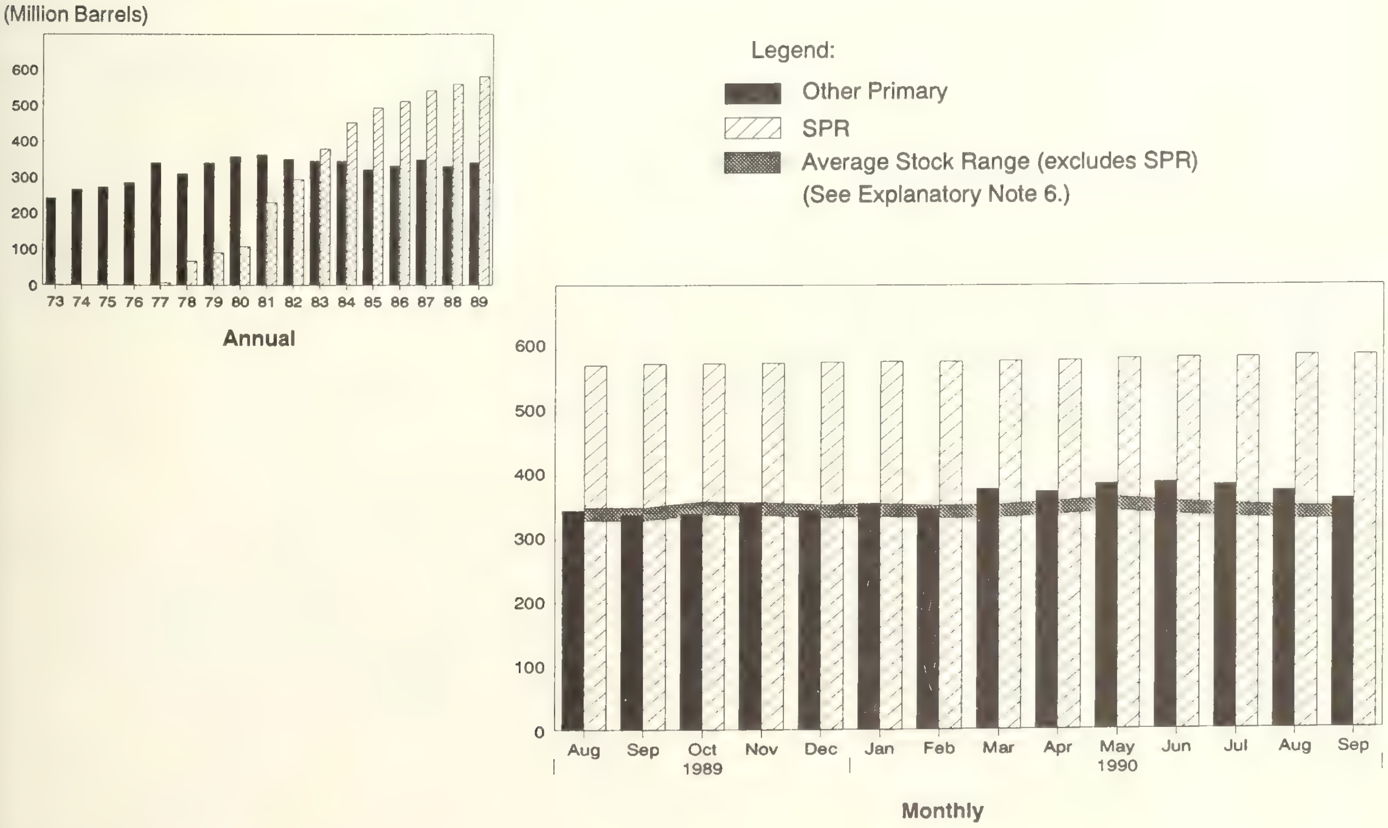

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports					
		Total Domestic	Alaskan	Total	SPR[d]	Other	Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Thousand Barrels per Day							
1973	**Average**	**9,208**	**198**	**3,244**	**--**	**3,244**	**3**	**-19**	**13**
1974	**Average**	**8,774**	**193**	**3,477**	**--**	**3,477**	**-25**	**-15**	**13**
1975	**Average**	**8,375**	**191**	**4,105**	**--**	**4,105**	**17**	**-17**	**13**
1976	**Average**	**8,132**	**173**	**5,287**	**--**	**5,287**	**77**	**-18**	**15**
1977	**Average**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-6**	**-14**	**16**
1978	**Average**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-57**	**-14**	**16**
1979	**Average**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-11**	**-13**	**16**
1980	**Average**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**34**	**-13**	**15**
1981	**Average**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**83**	**-58**	**5**
1982	**Average**	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**71**	**-59**	**3**
1983	**Average**	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**114**	**--**	**2**
1984	**Average**	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**185**	**--**	**2**
1985	**Average**	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**145**	**--**	**1**
1986	**Average**	**8,680**	**1,867**	**4,178**	**48**	**4,130**	**139**	**--**	**(s)**
1987	**Average**	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**--**	**(s)**
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**--**	**(s)**
1989	January	7,937	1,958	5,661	65	5,596	94	--	(s)
	February	7,788	1,962	5,305	84	5,221	-26	--	(s)
	March	7,575	1,686	5,035	75	4,960	426	--	(s)
	April	7,772	1,890	5,750	59	5,690	91	--	(s)
	May	7,816	1,973	5,729	77	5,652	280	--	(s)
	June	7,624	1,861	5,976	55	5,920	135	--	(s)
	July	7,444	1,725	6,214	75	6,139	426	--	(s)
	August	7,544	1,870	6,565	32	6,533	213	--	(s)
	September	7,548	1,875	6,028	59	5,969	121	--	1
	October	7,453	1,877	6,187	37	6,149	-125	--	0
	November	7,536	1,915	6,171	41	6,131	397	--	(s)
	December	7,337	1,904	5,463	12	5,452	343	--	(s)
	Average	**7,613**	**1,874**	**5,843**	**56**	**5,787**	**200**	**--**	**(s)**
1990	January	E 7,522	E 1,864	6,206	24	6,182	321	--	(s)
	February	E 7,465	E 1,834	5,858	12	5,847	-9	--	0
	March	E 7,394	E 1,819	6,125	44	6,081	544	--	0
	April	E 7,331	E 1,803	5,740	38	5,702	22	--	(s)
	May	E 7,259	E 1,766	6,438	89	6,349	335	--	0
	June	E 7,076	E 1,613	6,413	17	6,397	394	--	(s)
	July	E 7,144	E 1,687	6,812	0	6,812	220	--	0
	August*	RE 7,215	RE 1,736	R 6,432	95	R 6,337	R 348	--	(s)
	September**	PE 7,041	PE 1,630	E *5,915*	E *0*	E *5,915*	E *616*	--	E (s)
	9-Mo. Average	PE **7,271**	PE **1,750**	E **6,222**	E **36**	E **6,186**	E **313**	**--**	E **(s)**
1989	**9-Mo. Average**	**7,671**	**1,866**	**5,811**	**65**	**5,747**	**199**	**--**	**(s)**
1988	**9-Mo. Average**	**8,188**	**2,019**	**5,046**	**51**	**4,996**	**193**	**--**	**(s)**

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[a] Includes lease condensate.

[b] Stocks are totals as of end of period.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Strategic Petroleum Reserve.

[e] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels.

See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	--	-11	12,431	2	--	242	--	242
1974	**Average**	--	62	12,133	3	--	265	--	265
1975	**Average**	--	17	12,442	6	--	271	--	271
1976	**Average**	--	39	13,416	8	--	285	--	285
1977	**Average**	20	150	14,602	50	--	348	7	340
1978	**Average**	163	-84	14,739	158	--	376	67	309
1979	**Average**	67	81	14,648	235	--	430	91	339
1980	**Average**	45	52	13,481	287	--	[g] 466	108	[g] 358
1981	**Average**	336	[g] -46	12,470	228	--	594	230	363
1982	**Average**	174	-38	11,774	236	--	[g] 644	294	[g] 350
1983	**Average**	234	[g] -20	11,685	164	66	723	379	344
1984	**Average**	195	4	12,044	181	64	796	451	345
1985	**Average**	117	-67	12,002	204	60	814	493	321
1986	**Average**	50	28	12,716	154	49	843	512	331
1987	**Average**	80	49	12,854	151	34	890	541	349
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	26	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	52	-51	13,246	155	40	--	--	--
1989	January	65	115	13,330	137	47	895	562	334
	February	85	-38	12,765	208	48	897	564	333
	March	75	-202	12,963	156	45	893	566	327
	April	60	434	12,956	139	23	908	568	340
	May	77	194	13,405	131	19	916	570	346
	June	44	-478	13,905	243	20	903	572	331
	July	86	62	13,848	69	19	908	574	333
	August	32	251	13,861	162	17	916	575	341
	September	59	-203	13,791	32	18	912	577	335
	October	37	36	13,360	61	21	914	578	336
	November	41	500	13,420	120	25	930	579	351
	December	12	-313	13,165	247	33	921	580	341
	Average	56	30	13,401	142	28	--	--	--
1990	January	24	353	13,499	132	40	933	581	352
	February	12	-328	13,494	102	36	924	581	343
	March	44	986	12,876	133	24	956	582	374
	April	38	-132	13,051	112	24	953	583	370
	May	89	412	13,389	112	30	969	586	382
	June	16	59	13,690	88	29	971	587	384
	July	0	-152	14,208	89	31	966	587	380
	August*	R 94	R -321	R 14,140	R 64	R 18	R 959	590	R 370
	September**	E *0*	E *-655*	E *14,110*	E 88	E 30	E *946*	E *590*	E *357*
	9-Mo. Average	E 36	E 31	E 13,607	E 102	E 29	--	--	--
1989	**9-Mo. Average**	65	17	13,431	141	28	--	--	--
1988	**9-Mo. Average**	51	-75	13,255	157	39	--	--	--

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	Average	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	333	0	849	61	179	[f] 1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	300	0	1,064	29	205	(s)	618	794	510	3,520	1,839
1989	January	335	0	1,449	59	218	0	782	941	429	4,212	2,219
	February	310	0	1,290	17	292	0	567	775	593	3,845	2,126
	March	272	0	1,108	64	167	0	702	909	471	3,693	1,805
	April	235	0	1,226	14	128	0	750	831	743	3,927	2,030
	May	272	0	1,155	61	264	0	789	853	630	4,025	1,977
	June	205	0	1,249	17	138	0	864	778	856	4,106	2,164
	July	263	0	1,182	0	113	0	1,094	794	992	4,437	2,308
	August	216	0	1,316	44	115	0	946	834	1,060	4,531	2,453
	September	256	0	1,109	20	113	0	867	914	957	4,236	2,195
	October	250	0	1,158	14	167	0	713	1,004	872	4,177	2,122
	November	323	0	1,342	0	231	0	770	924	762	4,353	2,257
	December	288	0	1,115	26	263	0	915	903	602	4,111	1,905
	Average	269	0	1,224	28	183	0	815	873	748	4,140	2,130
1990	January	418	0	1,212	37	137	0	830	1,138	1,047	4,819	2,592
	February	280	0	1,557	18	260	0	833	890	753	4,590	2,504
	March	301	0	1,157	17	138	0	1,054	878	824	4,368	2,115
	April	234	0	1,149	9	88	0	969	1,005	742	4,196	2,073
	May	247	0	1,225	73	77	0	1,008	1,087	836	4,554	2,337
	June	333	0	1,137	20	138	0	778	1,070	960	4,435	2,293
	July	308	0	1,369	13	143	0	830	999	1,291	4,954	2,853
	August	349	0	1,189	0	83	0	881	1,013	1,378	4,894	2,716
	8-Mo. Average	309	0	1,247	24	132	0	899	1,011	983	4,604	2,436
1989	8-Mo. Average	263	0	1,246	35	178	0	815	841	723	4,101	2,136
1988	8-Mo. Average	294	0	1,022	36	190	(s)	628	811	457	3,438	1,745

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	**Average**	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	**Average**	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	**Average**	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	**Average**	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	**Average**	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	**Average**	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	**Average**	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	**Average**	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	**Average**	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	**Average**	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	**Average**	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	**Average**	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	**Average**	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	**Average**	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	**Average**	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	594	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	936	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	**32**	**999**	**747**	**36**	**97**	**315**	**22**	**242**	**1,392**	**3,882**	**7,402**
1989	January	53	1,065	809	59	105	215	30	415	1,293	4,043	8,255
	February	24	1,007	756	44	92	221	24	369	1,649	4,186	8,032
	March	41	961	667	52	82	174	38	324	1,424	3,763	7,456
	April	55	877	1,002	14	117	148	24	407	1,507	4,151	8,078
	May	29	901	808	32	68	202	46	379	1,288	3,753	7,778
	June	28	921	688	34	143	181	32	363	1,481	3,871	7,977
	July	32	849	758	49	89	328	39	331	1,458	3,932	8,369
	August	19	911	806	43	101	370	21	239	1,519	4,029	8,560
	September	8	949	721	35	95	191	33	190	1,545	3,766	8,002
	October	44	857	837	38	71	309	32	180	1,756	4,124	8,301
	November	41	911	743	72	91	165	42	279	1,645	3,988	8,341
	December	29	973	610	29	81	78	24	377	1,266	3,468	7,579
	Average	**34**	**931**	**767**	**42**	**94**	**215**	**32**	**321**	**1,484**	**3,921**	**8,061**
1990	January	74	952	789	9	109	219	35	409	1,732	4,328	9,147
	February	74	919	722	27	89	74	32	323	1,456	3,716	8,306
	March	35	823	812	10	103	273	32	264	1,205	3,557	7,925
	April	51	908	466	29	114	274	33	283	1,404	3,562	7,758
	May	29	994	778	20	88	347	38	285	1,604	4,184	8,738
	June	36	927	912	21	118	249	27	299	1,666	4,255	8,690
	July	25	882	695	30	107	211	35	252	1,701	3,939	8,893
	August	40	941	773	41	108	170	29	230	1,331	3,665	8,558
	8-Mo. Average	**45**	**918**	**744**	**23**	**105**	**229**	**33**	**293**	**1,513**	**3,903**	**8,506**
1989	**8-Mo. Average**	**35**	**936**	**787**	**41**	**100**	**230**	**32**	**353**	**1,450**	**3,963**	**8,064**
1988	**8-Mo. Average**	**33**	**999**	**732**	**34**	**96**	**330**	**22**	**221**	**1,349**	**3,818**	**7,255**

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

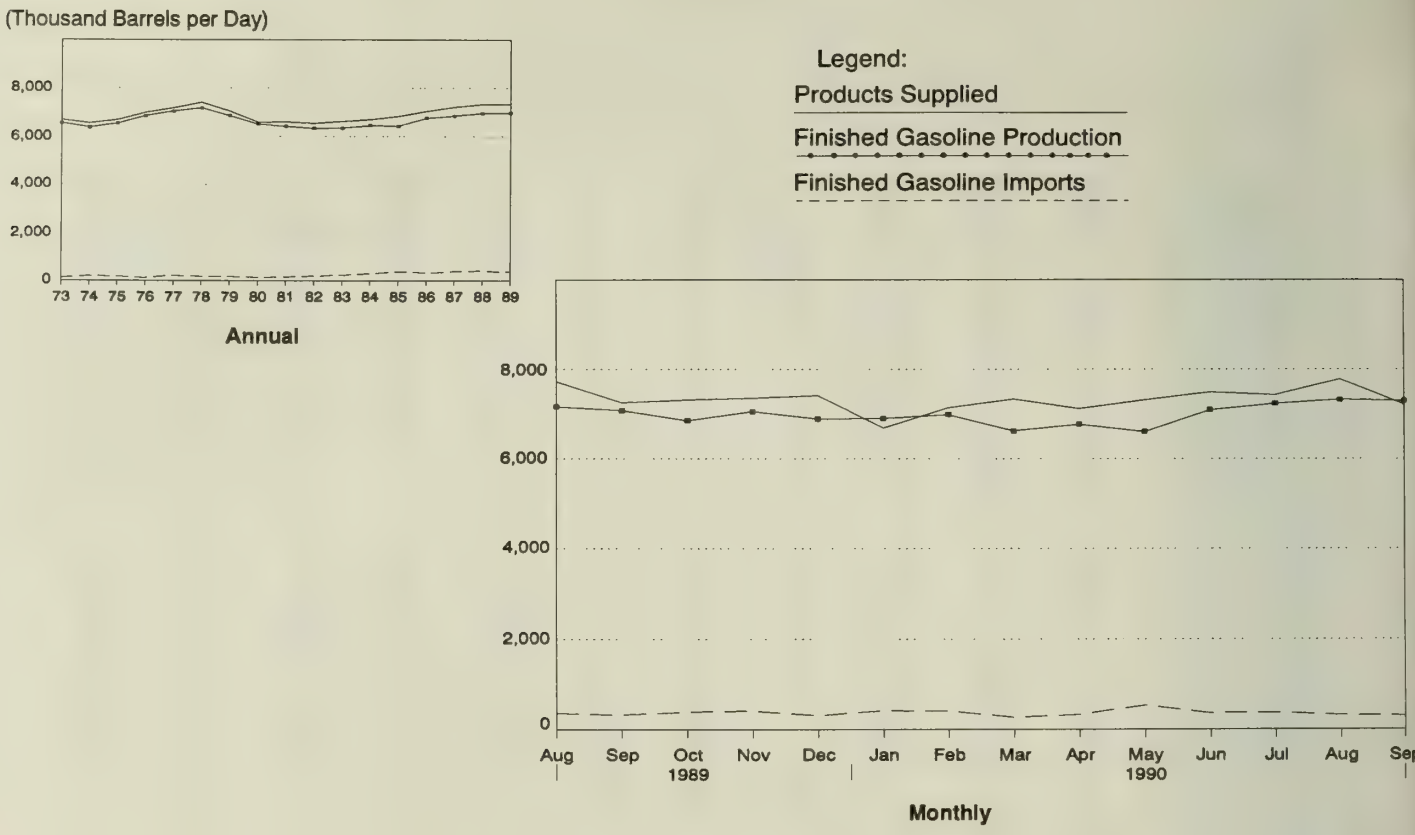
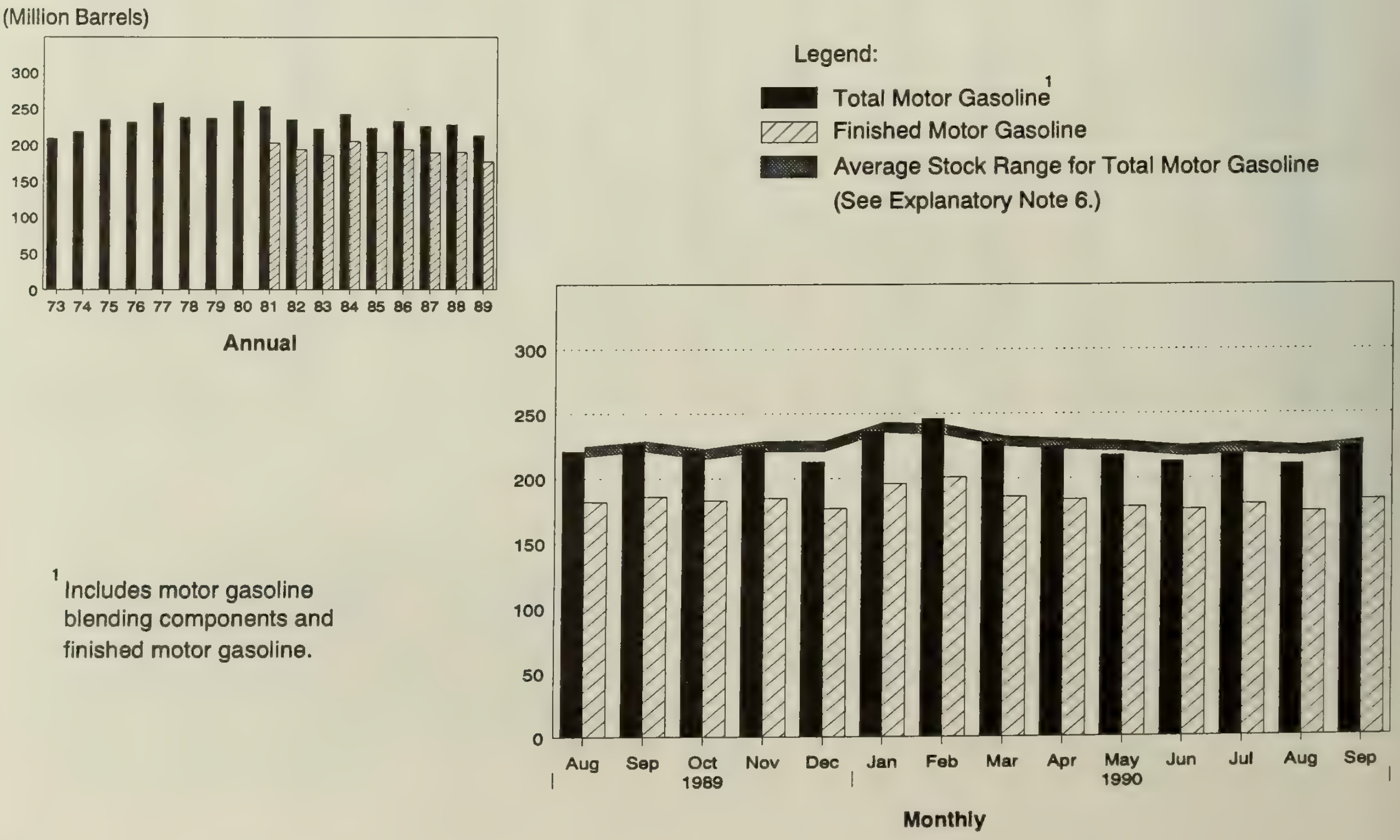


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	Average	6,535	134	-9	4	6,674	--	--	209	--
1974	Average	6,360	204	24	2	6,537	--	--	[f] 218	--
1975	Average	6,520	184	[f] 28	2	6,675	--	--	235	--
1976	Average	6,841	131	-10	3	6,978	--	--	231	--
1977	Average	7,033	217	72	2	7,177	1,976	27.5	258	--
1978	Average	7,169	190	-54	1	7,412	2,521	34.0	238	--
1979	Average	6,852	181	-2	(s)	7,034	2,798	39.8	237	--
1980	Average	6,506	140	66	1	6,579	3,067	46.6	[f] 261	--
1981	Average[g]	6,405	157	[f] -28	2	6,588	3,264	49.5	253	--
1982	Average	6,338	197	-25	20	6,539	3,409	52.1	[f] 235	--
1983	Average	6,340	247	[f] -45	10	6,622	3,647	55.1	222	186
1984	Average	6,453	299	54	6	6,693	3,987	59.6	243	205
1985	Average	6,419	381	-41	10	6,831	4,406	64.5	223	190
1986	Average	6,752	326	11	33	7,034	4,854	69.0	233	194
1987	Average	6,841	384	-15	35	7,206	5,470	75.9	226	189
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,983	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,956**	**405**	**3**	**22**	**7,336**	**5,995**	**81.7**	--	--
1989	January	6,937	353	512	33	6,745	5,754	85.3	249	206
	February	6,650	423	-70	24	7,119	6,141	86.3	248	204
	March	6,612	381	-471	43	7,421	6,380	86.0	230	189
	April	6,811	370	-22	46	7,157	6,248	87.3	227	188
	May	6,894	355	-163	31	7,381	6,454	87.5	223	183
	June	7,275	386	-180	60	7,780	6,864	88.2	216	178
	July	7,360	383	390	57	7,296	6,509	89.2	229	190
	August	7,155	360	-260	58	7,717	6,934	89.8	221	182
	September	7,069	320	118	31	7,240	6,443	89.0	227	186
	October	6,845	389	-97	29	7,302	6,642	91.0	222	183
	November	7,046	406	81	18	7,353	6,756	91.9	224	185
	December	6,884	306	-257	37	7,410	6,927	93.5	213	177
	Average	**6,963**	**369**	**-35**	**39**	**7,328**	**6,507**	**88.8**	--	--
1990	January	6,889	417	599	31	6,675	6,272	94.0	236	196
	February	6,978	407	204	53	7,129	6,657	93.4	246	201
	March	6,612	265	-493	45	7,325	6,881	93.9	228	186
	April	6,764	327	-52	28	7,116	6,696	94.1	224	184
	May	6,599	535	-196	25	7,304	6,884	94.2	218	178
	June	7,084	361	-86	52	7,478	7,059	94.4	213	176
	July	7,230	372	146	41	7,415	7,012	94.6	219	180
	August*	R 7,315	R 313	R -220	R 77	R 7,771	R 7,360	R 94.7	211	R 174
	September**	E *7,286*	E *299*	E *330*	E 49	E *7,206*	E *6,869*	E *95.3*	E *224*	E *183*
	9-Mo. Average	E **6,972**	E **366**	E **23**	E **45**	E **7,270**	E **6,856**	E **94.3**	--	--
1989	**9-Mo. Average**	**6,976**	**370**	**-16**	**43**	**7,319**	**6,416**	**87.6**	--	--
1988	**9-Mo. Average**	**6,916**	**421**	**-22**	**21**	**7,338**	**5,953**	**81.1**	--	--

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[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

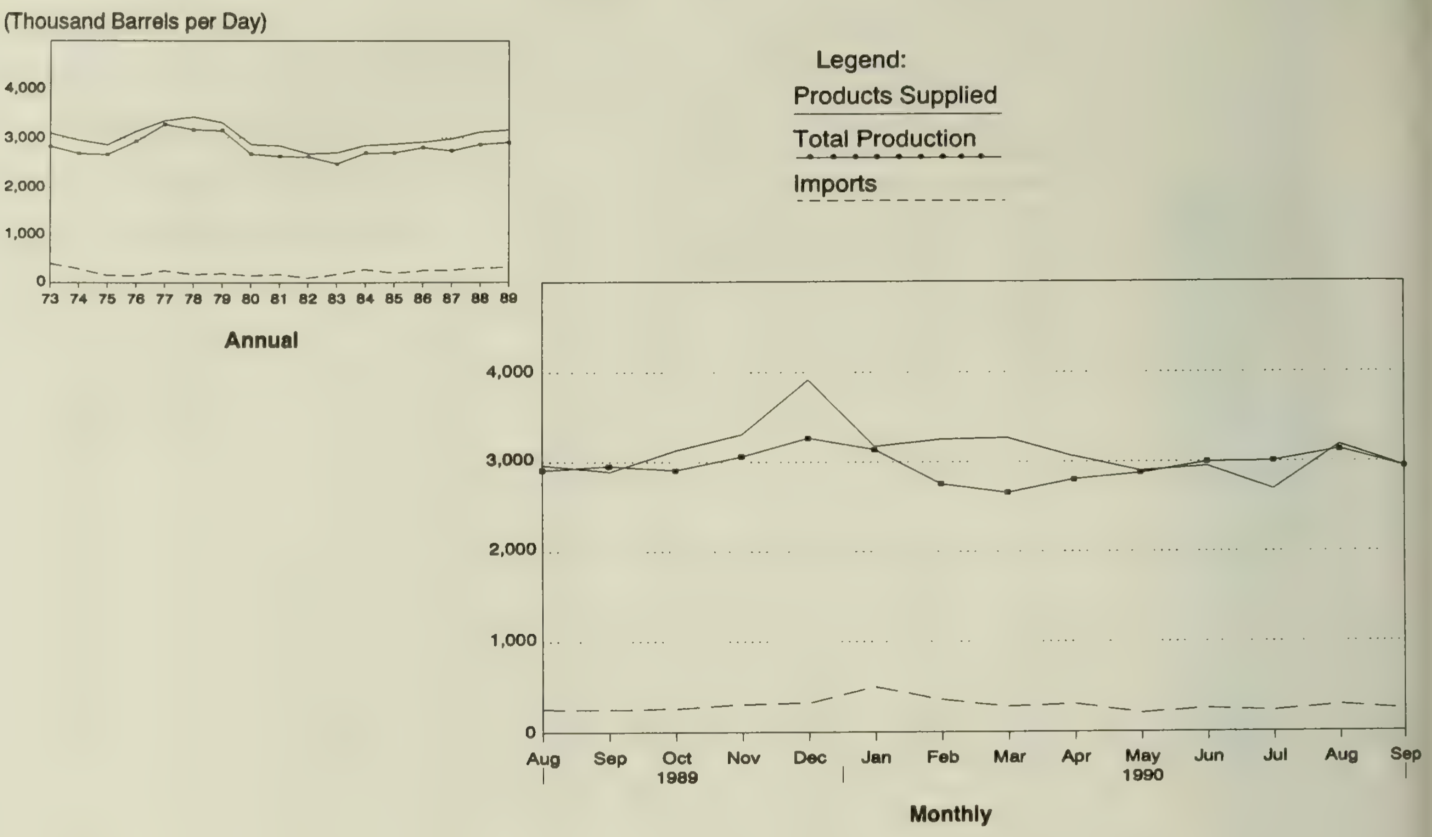

Figure S8. Distillate Fuel Oil Ending Stocks

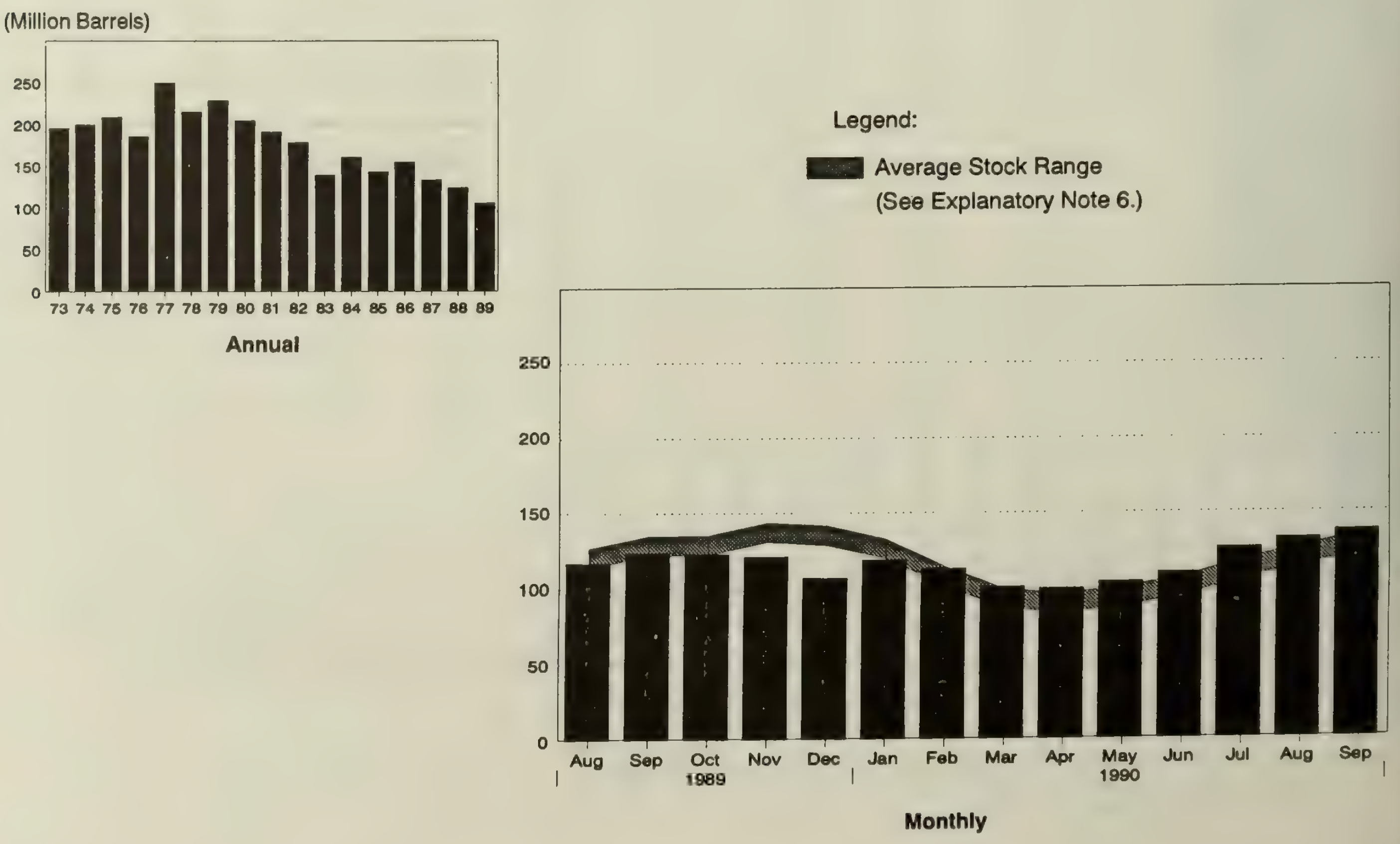

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**
1974	**Average**	**2,669**	**289**	**2**	**9**	**2**	**2,948**	**[d] 200**
1975	**Average**	**2,654**	**155**	**2**	**[d] -40**	**1**	**2,851**	**209**
1976	**Average**	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**
1977	**Average**	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**
1978	**Average**	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**
1979	**Average**	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**
1980	**Average**	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	**[d] 205**
1981	**Average[e]**	**2,613**	**173**	**10**	**[d] -38**	**5**	**2,829**	**192**
1982	**Average**	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	**[d] 179**
1983	**Average**	**2,456**	**174**	**–**	**[d] -124**	**64**	**2,690**	**140**
1984	**Average**	**2,681**	**272**	**--**	**57**	**51**	**2,845**	**161**
1985	**Average**	**2,687**	**200**	**–**	**-48**	**67**	**2,868**	**144**
1986	**Average**	**2,798**	**247**	**–**	**31**	**100**	**2,914**	**155**
1987	**Average**	**2,731**	**255**	**–**	**-56**	**66**	**2,976**	**134**
1988	January	3,010	424	--	-206	82	3,558	128
	February	2,667	383	--	-614	107	3,557	110
	March	2,706	247	--	-660	74	3,539	90
	April	2,867	210	--	171	42	2,864	95
	May	2,936	253	--	320	74	2,795	105
	June	2,893	222	--	185	76	2,854	110
	July	2,784	222	--	308	58	2,640	120
	August	2,848	279	--	185	70	2,873	126
	September	2,778	307	--	192	72	2,821	131
	October	2,827	336	--	-103	48	3,218	128
	November	2,909	327	--	19	34	3,183	129
	December	3,068	409	--	-171	87	3,560	124
	Average	**2,859**	**302**	**–**	**-30**	**69**	**3,122**	--
1989	January	2,974	346	--	-93	110	3,303	121
	February	2,797	331	--	-463	164	3,427	108
	March	2,713	439	--	-352	76	3,428	97
	April	2,789	301	--	60	56	2,975	99
	May	2,750	290	--	35	51	2,954	100
	June	2,809	233	--	(s)	39	3,002	100
	July	2,848	334	--	498	89	2,596	115
	August	2,907	254	--	41	154	2,966	116
	September	2,952	249	--	231	81	2,889	123
	October	2,906	261	--	-50	90	3,127	122
	November	3,063	307	--	-64	123	3,311	120
	December	3,266	324	--	-454	130	3,914	106
	Average	**2,899**	**306**	**–**	**-49**	**97**	**3,157**	–
1990	January	3,136	501	--	398	62	3,177	118
	February	2,753	357	--	-204	65	3,250	112
	March	2,655	280	--	-405	75	3,265	100
	April	2,802	308	--	-8	59	3,059	99
	May	2,873	207	--	109	75	2,897	103
	June	2,995	257	--	219	84	2,949	109
	July	3,006	229	--	512	30	2,693	125
	August*	R 3,131	R 292	--	R 188	R 51	R 3,184	R 131
	September**	E *2,944*	E *242*	--	E *175*	E *66*	E *2,944*	E *136*
	9-Mo. Average	E **2,924**	E **297**	**–**	E **113**	E **63**	E **3,045**	--
1989	**9-Mo. Average**	**2,838**	**309**	**–**	**-1**	**91**	**3,057**	--
1988	**9-Mo. Average**	**2,833**	**283**	**–**	**-11**	**73**	**3,054**	–

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

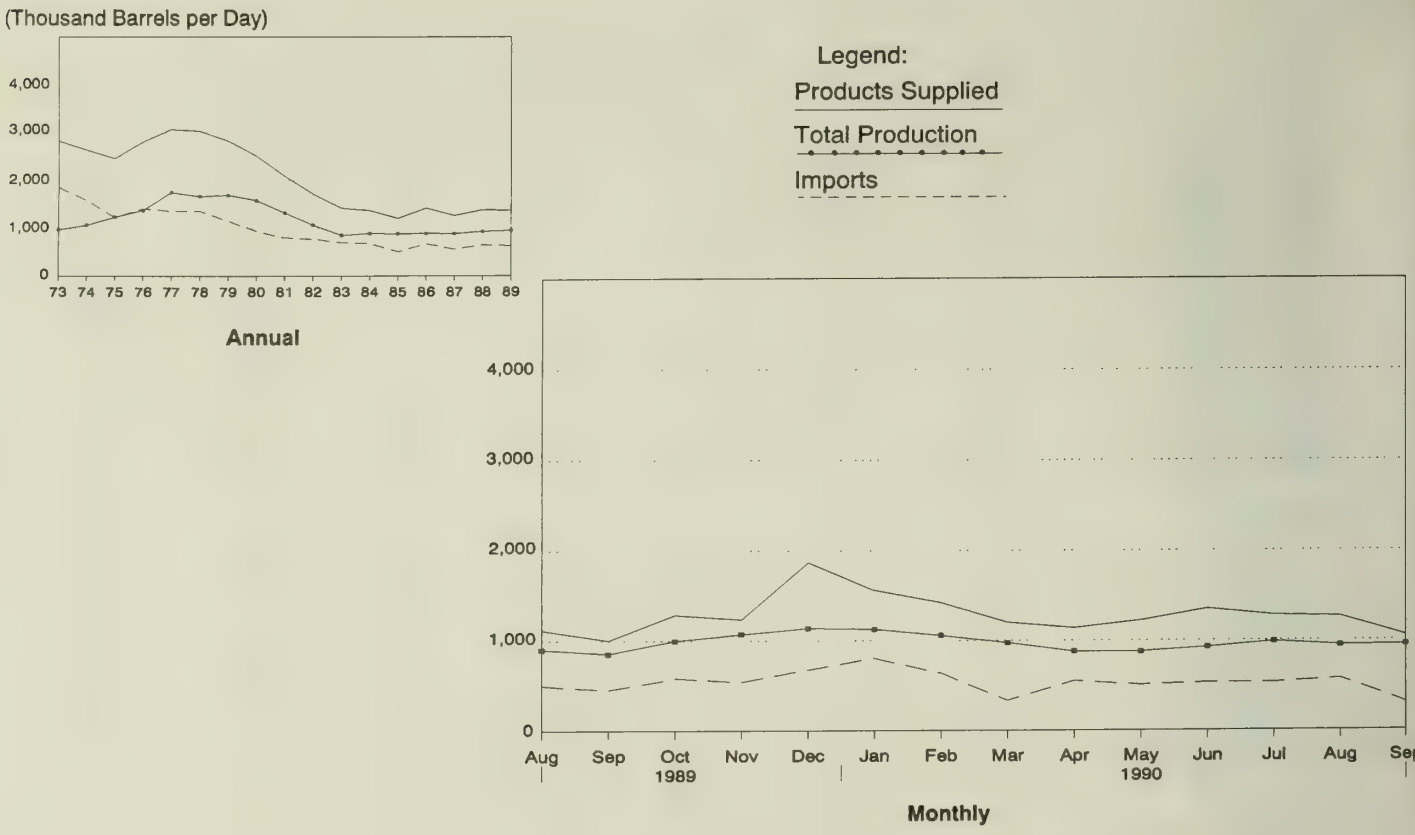

Figure S10. Residual Fuel Oil Ending Stocks

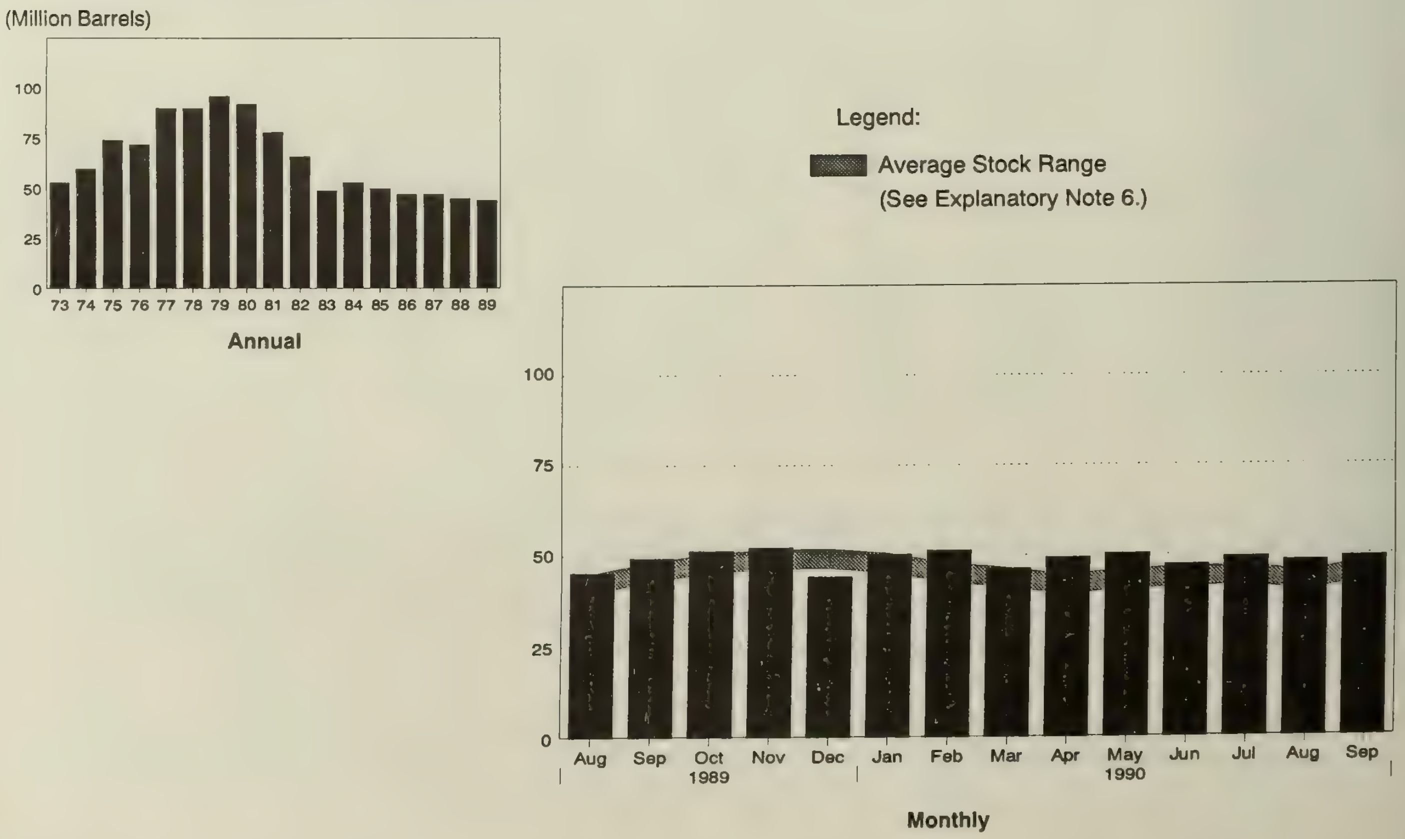

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			Ending Stocks[c]
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**971**	**1,853**	**17**	**-5**	**23**	**2,822**	**53**
1974	**Average**	**1,070**	**1,587**	**13**	**17**	**14**	**2,639**	[d] **60**
1975	**Average**	**1,235**	**1,223**	**15**	[d] **-2**	**15**	**2,462**	**74**
1976	**Average**	**1,377**	**1,413**	**17**	**-5**	**12**	**2,801**	**72**
1977	**Average**	**1,754**	**1,359**	**13**	**48**	**6**	**3,071**	**90**
1978	**Average**	**1,667**	**1,355**	**13**	**1**	**13**	**3,023**	**90**
1979	**Average**	**1,687**	**1,151**	**12**	**15**	**9**	**2,826**	**96**
1980	**Average**	**1,580**	**939**	**12**	**-10**	**33**	**2,508**	[d] **92**
1981	**Average**[e]	**1,321**	**800**	**48**	[d] **-37**	**118**	**2,088**	**78**
1982	**Average**	**1,070**	**776**	**48**	**-32**	**209**	**1,716**	[d] **66**
1983	**Average**	**852**	**699**	**--**	[d] **-55**	**185**	**1,421**	**49**
1984	**Average**	**891**	**681**	**--**	**12**	**190**	**1,369**	**53**
1985	**Average**	**882**	**510**	**--**	**-7**	**197**	**1,202**	**50**
1986	**Average**	**889**	**669**	**--**	**-8**	**147**	**1,418**	**47**
1987	**Average**	**885**	**565**	**--**	**(s)**	**186**	**1,264**	**47**
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	**926**	**644**	**--**	**-8**	**200**	**1,378**	**--**
1989	January	949	909	--	84	151	1,623	47
	February	930	877	--	-58	146	1,719	46
	March	937	706	--	-128	220	1,551	42
	April	904	681	--	-52	236	1,401	40
	May	934	538	--	77	276	1,119	42
	June	953	533	--	54	208	1,223	44
	July	862	556	--	-44	176	1,286	43
	August	903	501	--	58	225	1,121	45
	September	856	454	--	162	137	1,010	49
	October	1,001	583	--	50	243	1,292	51
	November	1,075	543	--	48	330	1,240	52
	December	1,140	680	--	-275	226	1,870	44
	Average	**954**	**629**	**--**	**-2**	**215**	**1,370**	**--**
1990	January	1,129	809	--	191	186	1,561	50
	February	1,060	640	--	63	214	1,424	51
	March	974	334	--	-171	277	1,202	46
	April	880	555	--	93	200	1,142	49
	May	877	507	--	21	141	1,222	50
	June	926	536	--	-96	207	1,350	47
	July	987	535	--	72	171	1,279	49
	August*	R 945	R 574	--	R -25	R 280	R 1,263	R 48
	September**	E *951*	E *309*	--	E *11*	E 195	E *1,055*	E *49*
	9-Mo. Average	E **970**	E **533**	**--**	E **17**	E **208**	E **1,277**	**--**
1989	**9-Mo. Average**	**914**	**638**	**--**	**18**	**198**	**1,336**	**--**
1988	**9-Mo. Average**	**919**	**596**	**--**	**-10**	**200**	**1,325**	**--**

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

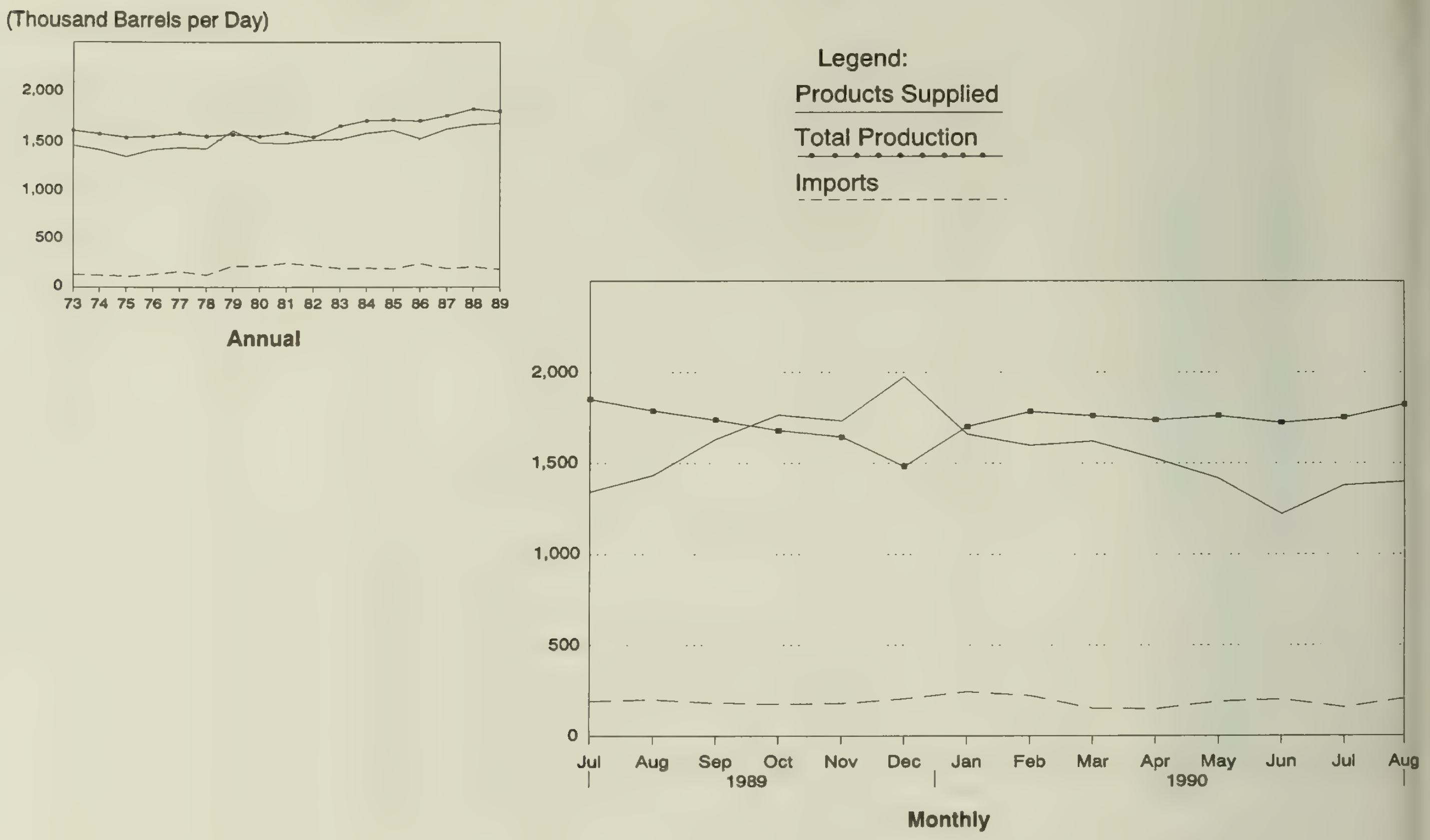

Figure S12. Liquefied Petroleum Gases Ending Stocks

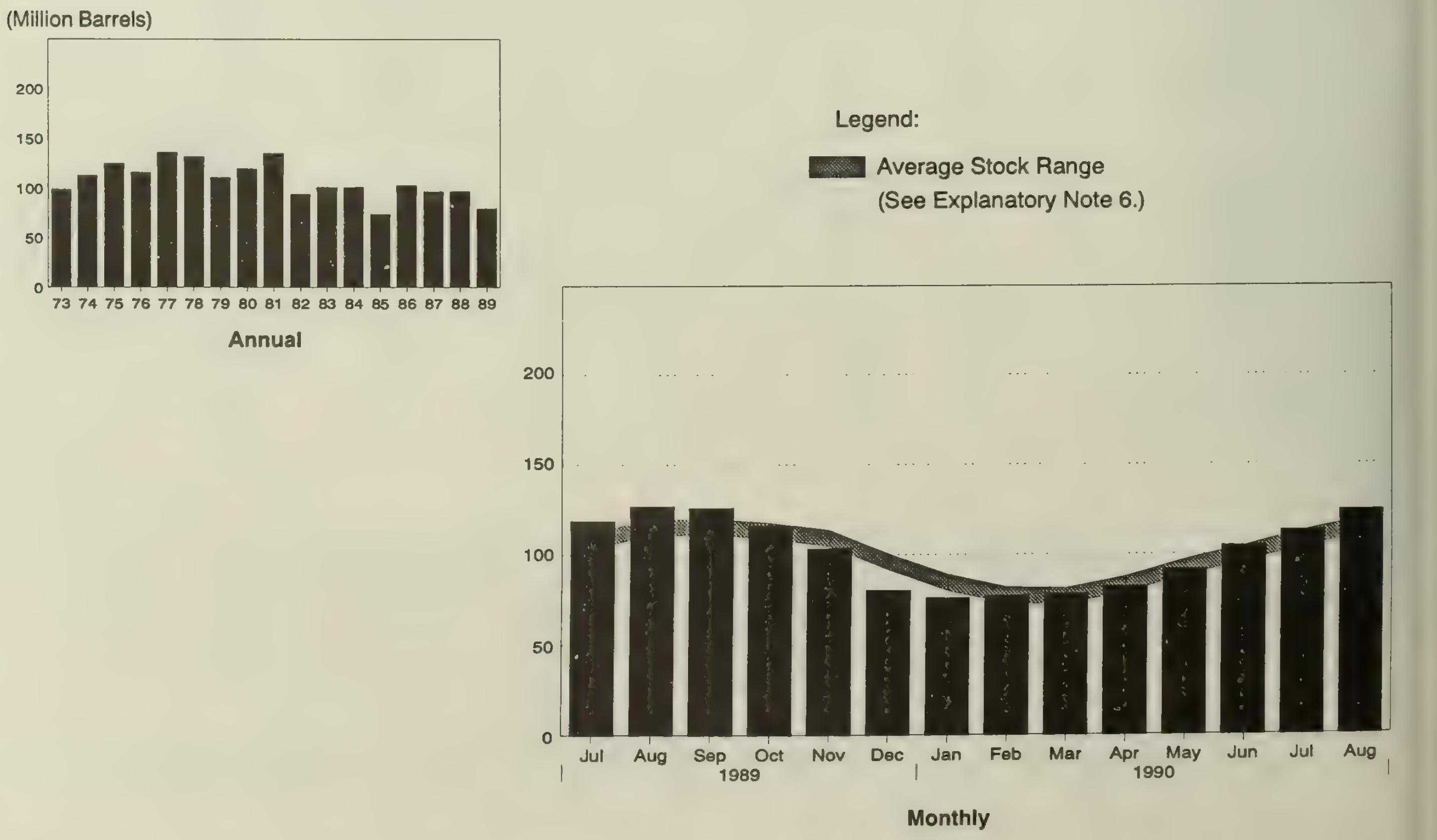

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	1,600	132	35	220	27	1,449	99
1974	**Average**	1,565	123	38	220	25	1,406	[d]113
1975	**Average**	1,527	112	[d]35	246	26	1,333	125
1976	**Average**	1,535	130	-24	260	25	1,404	116
1977	**Average**	1,566	161	55	233	18	1,422	136
1978	**Average**	1,537	123	-12	239	20	1,413	132
1979	**Average**	1,556	217	-70	236	15	1,592	111
1980	**Average**	1,535	216	27	233	21	1,469	[d]120
1981	**Average**	1,571	244	[d]18	289	42	1,466	135
1982	**Average**	1,528	226	-111	300	65	1,499	[d]94
1983	**Average**	1,642	190	[d]-4	253	73	1,509	[d]101
1984	**Average**	1,697	195	[d]-19	291	48	1,572	101
1985	**Average**	1,704	187	-75	304	62	1,599	74
1986	**Average**	1,695	242	80	302	42	1,512	103
1987	**Average**	1,748	190	-15	304	38	1,612	97
1988	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	**1,817**	**209**	**1**	**321**	**49**	**1,656**	--
1989	January	1,885	239	-335	422	19	2,018	87
	February	1,798	260	-333	328	31	2,032	78
	March	1,909	150	-85	274	43	1,827	75
	April	1,950	121	294	242	27	1,507	84
	May	1,943	110	428	226	43	1,357	97
	June	1,824	155	269	254	35	1,422	105
	July	1,850	192	407	247	45	1,343	118
	August	1,787	202	272	245	40	1,433	126
	September	1,737	182	-46	303	31	1,631	125
	October	1,679	176	-313	371	31	1,766	115
	November	1,643	179	-389	446	33	1,732	103
	December	1,483	205	-749	424	37	1,975	80
	Average	**1,791**	**181**	**-47**	**315**	**35**	**1,668**	--
1990	January	1,700	245	-174	416	44	1,660	76
	February	1,784	223	20	346	42	1,599	77
	March	1,760	152	42	205	44	1,620	78
	April	1,738	148	136	200	25	1,525	82
	May	1,760	189	279	216	36	1,417	91
	June	1,722	201	451	220	28	1,223	104
	July	1,750	156	259	230	36	1,379	112
	August*	1,823	206	334	253	43	1,400	123
	8-Mo. Average	**1,754**	**190**	**169**	**260**	**37**	**1,477**	--
1989	**8-Mo. Average**	**1,869**	**178**	**119**	**279**	**35**	**1,613**	--
1988	**8-Mo. Average**	**1,806**	**203**	**96**	**295**	**41**	**1,577**	--

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	Average	3,693	502	9	750	166	3,270	208
1974	Average	3,558	432	28	665	174	3,123	[d]218
1975	Average	3,418	277	[d]-4	537	160	3,002	219
1976	Average	3,643	206	5	524	175	3,145	220
1977	Average	3,912	205	27	514	165	3,410	230
1978	Average	4,046	166	-14	492	167	3,568	225
1979	Average	4,153	195	37	352	209	3,749	238
1980	Average	3,956	210	23	311	198	3,634	[d]247
1981	Average	3,739	226	[d]-46	723	199	3,088	282
1982	Average	3,453	334	-80	787	211	2,869	[d]253
1983	Average	3,460	411	[d]-6	712	242	2,923	[d]256
1984	Average	3,632	565	[d]-23	791	245	3,183	240
1985	Average	3,721	588	17	886	240	3,166	246
1986	Average	3,997	561	10	888	308	3,353	250
1987	Average	4,080	610	-1	829	289	3,572	250
1988	January	3,942	706	136	812	354	3,347	254
	February	3,905	680	31	753	318	3,484	255
	March	4,147	666	282	687	328	3,515	264
	April	4,010	794	87	851	288	3,577	266
	May	4,071	843	335	501	274	3,803	277
	June	4,265	787	-43	777	379	3,939	276
	July	4,315	781	21	831	329	3,915	276
	August	4,413	701	-199	796	302	4,215	270
	September	4,245	651	-159	850	323	3,882	265
	October	4,163	771	-40	762	268	3,944	264
	November	4,068	823	43	818	303	3,728	265
	December	4,155	613	-429	1,153	392	3,653	252
	Average	4,143	735	6	799	321	3,751	--
1989	January	4,198	746	396	706	311	3,532	264
	February	3,957	837	191	726	302	3,574	270
	March	4,067	745	112	660	321	3,718	273
	April	3,953	854	133	808	306	3,561	277
	May	4,131	755	221	688	260	3,718	284
	June	4,375	695	-206	838	389	4,049	278
	July	4,454	690	-69	955	344	3,913	276
	August	4,436	677	-215	893	328	4,107	269
	September	4,428	770	112	737	343	4,005	272
	October	4,191	705	32	730	337	3,796	273
	November	4,122	736	-43	900	351	3,650	272
	December	3,763	600	-601	918	391	3,655	253
	Average	4,174	733	4	797	332	3,774	--
1990	January	4,014	970	176	699	255	3,854	259
	February	4,255	819	495	645	347	3,587	273
	March	4,115	769	144	787	306	3,646	278
	April	4,125	679	-195	861	337	3,800	272
	May	4,235	861	292	531	300	3,973	281
	June	4,267	922	-141	904	345	4,082	277
	July	4,581	789	30	954	327	4,059	278
	August*	4,519	741	-370	997	334	4,299	266
	8-Mo. Average	4,265	819	50	798	318	3,916	--
1989	8-Mo. Average	4,200	748	70	785	320	3,774	--
1988	8-Mo. Average	4,135	745	82	751	321	3,726	--

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1989: EIA, *Petroleum Supply Annual.*

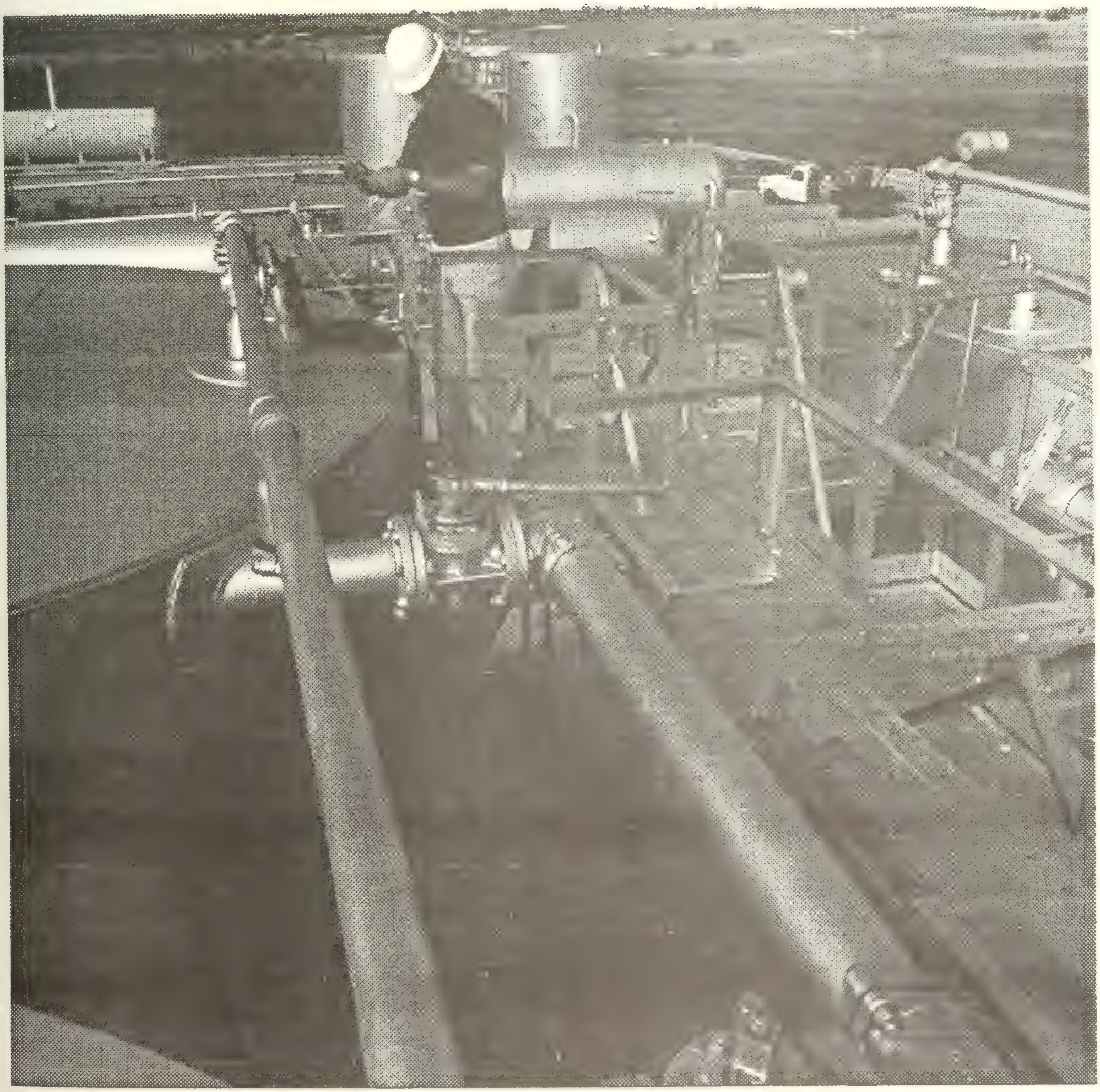
4. January 1990 through August 1990: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 5.)

5. September 1990: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)

6. January 1990 through September 1990: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 6).

Detailed Statistics



At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, August 1990

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
(1)	Alaska	E 53,822	E 1,736	E 428,828	E 1,765
(2)	Lower 48 States	E 169,856	E 5,479	E 1,344,975	E 5,535
(3)	**Total U.S.**	**E 223,678**	**E 7,215**	**E 1,773,803**	**E 7,300**
	Net Imports				
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	196,433	6,337	1,511,251	6,219
(5)	SPR Imports	2,946	95	9,772	40
(6)	Exports	1,991	64	25,306	104
(7)	**Imports (Net Including SPR)**	**197,388**	**6,367**	**1,495,717**	**6,155**
	Other Sources				
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-2,928	-94	-9,749	-40
(9)	Other Stock Change (Withdrawal (+), Addition (-))	9,951	321	-28,258	-116
(10)	Product Supplied and Losses	-558	-18	-7,052	-29
(11)	Unaccounted for[a]	10,800	348	67,065	276
(12)	**Total Other Sources**	**17,265**	**557**	**22,006**	**91**
(13)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**438,331**	**14,140**	**3,291,526**	**13,545**
	Natural Gas Liquids (NGL)				
(14)	Field Production	48,411	1,562	366,746	1,509
(15)	Net Imports[b]	338	11	1,716	7
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	-249	-8	-510	-2
(17)	**Total NGL Supply**	**48,500**	**1,565**	**367,952**	**1,514**
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Change (Withdrawal (+), Addition (-))	2,537	82	-6,876	-28
(19)	Imports	12,913	417	111,494	459
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	2,026	65	17,253	71
(21)	Refinery Processing Gain[a]	22,233	717	160,630	661
(22)	Crude Oil Product Supplied	557	18	7,038	29
(23)	**Total Other Liquids** (23) = (18) through (22)	**40,266**	**1,299**	**289,539**	**1,192**
(24)	**Total Production of Products** (24) = (13) + (17) + (23)	**527,097**	**17,003**	**3,949,017**	**16,251**
	Net Imports of Refined Products				
(25)	Imports (Gross)	52,650	1,698	432,444	1,780
(26)	Exports	24,322	785	162,872	670
(27)	**Imports (Net)**	**28,328**	**914**	**269,572**	**1,109**
(28)	**Total New Supply of Products** (28) = (24) + (27)	**555,425**	**17,917**	**4,218,590**	**17,360**
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	576	19	-72,306	-298
(30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	**556,001**	**17,936**	**4,146,284**	**17,063**
(31)	Finished Motor Gasoline	240,914	7,771	1,768,637	7,278
(32)	Distillate Fuel Oil	98,694	3,184	742,927	3,057
(33)	Residual Fuel Oil	39,162	1,263	317,000	1,305
(34)	Liquefied Petroleum Gases	43,400	1,400	359,007	1,477
(35)	Other[c]	133,274	4,299	951,675	3,916
(36)	Crude Oil	557	18	7,038	29
(37)	**Total Products Supplied** (37) = (31) through (36)	**556,001**	**17,936**	**4,146,284**	**17,063**
	Ending Stocks, All Oils				
(38)	Crude Oil (Excluding SPR)	369,567	--	369,567	--
(39)	Strategic Petroleum Reserve	589,606	--	589,606	--
(40)	Finished Motor Gasoline	173,549	--	173,549	--
(41)	Distillate Fuel Oil	131,093	--	131,093	--
(42)	Residual Fuel Oil	48,233	--	48,233	--
(43)	Liquefied Petroleum Gases	122,639	--	122,639	--
(44)	Other[c]	266,063	--	266,063	--
(45)	**Total Stocks** (45) = (38) through (44)	**1,700,750**	**--**	**1,700,750**	**--**

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[a] Unaccounted for crude oil and refinery processing gain are balancing items. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990
(Thousand Barrels)

Commodity .	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	**E 223,678**	**--**	**199,379**	**10,800**	**-7,023**	**1**	**438,331**	**1,991**	**557**	**959,173**
Natural Gas Liquids and LRGs	**48,411**	**17,962**	**6,763**	**--**	**10,599**	**--**	**13,468**	**1,348**	**47,721**	**131,619**
Pentanes Plus	9,862	--	366	--	249	--	5,631	28	4,320	8,980
Liquefied Petroleum Gases	38,549	17,962	6,397	--	10,350	--	7,837	1,321	43,400	122,639
Ethane/Ethylene	14,898	538	0	--	-177	--	0	3	15,610	20,536
Propane/Propylene	14,401	12,884	3,415	--	3,943	--	248	748	25,761	52,873
Normal Butane/Butylene	4,304	4,116	2,102	--	5,882	--	2,275	570	1,795	38,547
Isobutane	4,946	424	880	--	702	--	5,314	0	234	10,683
Other Liquids	**2,026**	**--**	**12,913**	**--**	**-2,537**	**--**	**25,262**	**0**	**-7,786**	**150,369**
Other Hydrocarbons/Alcohol	2,026	--	0	--	19	--	2,007	0	0	1,361
Unfinished Oils	--	--	11,548	--	-1,399	--	22,900	0	-9,953	111,030
Motor Gasoline Blend. Comp.	--	--	1,365	--	-1,214	--	412	0	2,167	37,779
Aviation Gasoline Blend. Comp.	--	--	0	--	57	--	-57	0	0	199
Finished Petroleum Products	**--**	**481,332**	**46,253**	**--**	**-10,926**	**--**	**--**	**23,001**	**515,510**	**459,589**
Finished Motor Gasoline	--	226,780	9,705	--	-6,809	--	--	2,380	240,914	173,549
Leaded	--	12,719	200	--	6	--	--	148	12,765	10,595
Unleaded	--	214,061	9,505	--	-6,815	--	--	2,232	228,149	162,954
Finished Aviation Gasoline	--	1,061	5	--	142	--	--	0	924	1,814
Jet Fuel	--	43,393	2,573	--	-2,659	--	--	1,152	47,473	48,232
Naphtha-Type	--	5,385	60	--	-615	--	--	225	5,835	5,719
Kerosene-Type	--	38,008	2,513	--	-2,044	--	--	927	41,638	42,513
Kerosene	--	1,772	23	--	-8	--	--	9	1,794	5,949
Distillate Fuel Oil	--	97,063	9,064	--	5,843	--	--	1,590	98,694	131,093
Residual Fuel Oil	--	29,294	17,791	--	-767	--	--	8,690	39,162	48,233
Naphtha for Petro. Feed. Use	--	3,823	1,130	--	-362	--	--	227	5,088	1,451
Other Oils for Petro. Feed. Use	--	8,559	4,001	--	-369	--	--	465	12,464	2,029
Special Naphthas	--	1,868	175	--	-44	--	--	390	1,697	2,910
Lubricants	--	5,374	297	--	-1,035	--	--	639	6,067	12,017
Waxes	--	489	51	--	-65	--	--	55	550	865
Petroleum Coke	--	18,059	19	--	41	--	--	7,113	10,924	7,568
Asphalt and Road Oil	--	18,605	1,349	--	-4,963	--	--	135	24,782	21,335
Still Gas	--	22,917	0	--	0	--	--	0	22,917	0
Miscellaneous Products	--	2,275	70	--	129	--	--	156	2,060	2,544
Total	**274,115**	**499,294**	**265,308**	**10,800**	**-9,887**	**1**	**477,061**	**26,341**	**556,001**	**1,700,750**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-August 1990

(Thousand Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	Ending Stocks
Crude Oil	E 1,773,803	--	1,521,023	67,065	38,007	14	3,291,526	25,306	7,038	959,173
Natural Gas Liquids and LRGs	366,746	133,341	48,218	--	41,643	--	106,083	9,464	391,115	131,619
Pentanes Plus	73,758	--	2,102	--	510	--	42,856	386	32,108	8,980
Liquefied Petroleum Gases	292,988	133,341	46,116	--	41,133	--	63,227	9,078	359,007	122,639
Ethane/Ethylene	108,023	3,389	886	--	-2,807	--	58	17	115,030	20,536
Propane/Propylene	113,374	97,697	29,912	--	19,746	--	1,895	6,147	213,195	52,873
Normal Butane/Butylene	33,962	29,264	11,418	--	21,582	--	24,011	2,914	26,137	38,547
Isobutane	37,629	2,991	3,900	--	2,612	--	37,263	0	4,645	10,683
Other Liquids	17,253	--	111,494	--	6,876	--	151,171	0	-29,300	150,369
Other Hydrocarbons/Alcohol	17,253	--	0	--	679	--	16,574	0	0	1,361
Unfinished Oils	--	--	94,151	--	4,837	--	135,644	0	-46,330	111,030
Motor Gasoline Blend. Comp.	--	--	17,343	--	1,319	--	-959	0	16,983	37,779
Aviation Gasoline Blend. Comp.	--	--	0	--	41	--	-88	0	47	199
Finished Petroleum Products	--	3,576,069	386,328	--	31,173	--	--	153,794	3,777,430	459,589
Finished Motor Gasoline	--	1,684,811	91,007	--	-3,530	--	--	10,711	1,768,637	173,549
Leaded	--	96,792	376	--	-7,086	--	--	1,289	102,965	10,595
Unleaded	--	1,588,019	90,631	--	3,556	--	--	9,423	1,665,671	162,954
Finished Aviation Gasoline	--	6,023	38	--	-257	--	--	0	6,318	1,814
Jet Fuel	--	342,028	27,870	--	7,330	--	--	5,846	356,722	48,232
Naphtha-Type	--	43,660	411	--	-712	--	--	1,265	43,518	5,719
Kerosene-Type	--	298,368	27,459	--	8,042	--	--	4,581	313,204	42,513
Kerosene	--	17,428	1,412	--	810	--	--	153	17,877	5,949
Distillate Fuel Oil	--	709,841	73,758	--	25,475	--	--	15,197	742,927	131,093
Residual Fuel Oil	--	236,153	136,171	--	4,424	--	--	50,900	317,000	48,233
Naphtha for Petro. Feed. Use	--	31,843	18,690	--	-506	--	--	1,258	49,781	1,451
Other Oils for Petro. Feed. Use	--	65,263	24,241	--	25	--	--	5,152	84,327	2,029
Special Naphthas	--	13,800	2,241	--	-98	--	--	1,969	14,170	2,910
Lubricants	--	40,259	2,302	--	-1,809	--	--	4,636	39,734	12,017
Waxes	--	4,025	277	--	-157	--	--	432	4,027	865
Petroleum Coke	--	133,855	534	--	-947	--	--	56,418	78,918	7,568
Asphalt and Road Oil	--	109,098	7,335	--	720	--	--	592	115,121	21,335
Still Gas	--	166,161	0	--	0	--	--	0	166,161	0
Miscellaneous Products	--	15,481	452	--	-307	--	--	530	15,710	2,544
Total	2,157,802	3,709,410	2,067,063	67,065	117,699	14	3,548,780	188,563	4,146,284	1,700,750

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, August 1990
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,215	--	6,432	348	-227	(s)	14,140	64	18
Natural Gas Liquids and LRGs	1,562	579	218	--	342	--	434	43	1,539
Pentanes Plus	318	--	12	--	8	--	182	1	139
Liquefied Petroleum Gases	1,244	579	206	--	334	--	253	43	1,400
Ethane/Ethylene	481	17	0	--	-6	--	0	(s)	504
Propane/Propylene	465	416	110	--	127	--	8	24	831
Normal Butane/Butylene	139	133	68	--	190	--	73	18	58
Isobutane	160	14	28	--	23	--	171	0	8
Other Liquids	65	--	417	--	-82	--	815	0	-251
Other Hydrocarbons/Alcohol	65	--	0	--	1	--	65	0	0
Unfinished Oils	--	--	373	--	-45	--	739	0	-321
Motor Gasoline Blend. Comp.	--	--	44	--	-39	--	13	0	70
Aviation Gasoline Blend. Comp.	--	--	0	--	2	--	-2	0	0
Finished Petroleum Products	--	15,527	1,492	--	-352	--	--	742	16,629
Finished Motor Gasoline	--	7,315	313	--	-220	--	--	77	7,771
Leaded	--	410	6	--	(s)	--	--	5	412
Unleaded	--	6,905	307	--	-220	--	--	72	7,360
Finished Aviation Gasoline	--	34	(s)	--	5	--	--	0	30
Jet Fuel	--	1,400	83	--	-86	--	--	37	1,531
Naphtha-Type	--	174	2	--	-20	--	--	7	188
Kerosene-Type	--	1,226	81	--	-66	--	--	30	1,343
Kerosene	--	57	1	--	(s)	--	--	(s)	58
Distillate Fuel Oil	--	3,131	292	--	188	--	--	51	3,184
Residual Fuel Oil	--	945	574	--	-25	--	--	280	1,263
Naphtha for Petro. Feed. Use	--	123	36	--	-12	--	--	7	164
Other Oils for Petro. Feed. Use	--	276	129	--	-12	--	--	15	402
Special Naphthas	--	60	6	--	-1	--	--	13	55
Lubricants	--	173	10	--	-33	--	--	21	196
Waxes	--	16	2	--	-2	--	--	2	18
Petroleum Coke	--	583	1	--	1	--	--	229	352
Asphalt and Road Oil	--	600	44	--	-160	--	--	4	799
Still Gas	--	739	0	--	0	--	--	0	739
Miscellaneous Products	--	73	2	--	4	--	--	5	66
Total	8,842	16,106	8,558	348	-319	(s)	15,389	850	17,936

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990

(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,300	--	6,259	276	156	(s)	13,545	104	29
Natural Gas Liquids and LRGs	1,509	549	198	--	171	--	437	39	1,610
Pentanes Plus	304	--	9	--	2	--	176	2	132
Liquefied Petroleum Gases	1,206	549	190	--	169	--	260	37	1,477
Ethane/Ethylene	445	14	4	--	-12	--	(s)	(s)	473
Propane/Propylene	467	402	123	--	81	--	8	25	877
Normal Butane/Butylene	140	120	47	--	89	--	99	12	108
Isobutane	155	12	16	--	11	--	153	0	19
Other Liquids	71	--	459	--	28	--	622	0	-121
Other Hydrocarbons/Alcohol	71	--	0	--	3	--	68	0	0
Unfinished Oils	--	--	387	--	20	--	558	0	-191
Motor Gasoline Blend. Comp.	--	--	71	--	5	--	-4	0	70
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	14,716	1,590	--	128	--	--	633	15,545
Finished Motor Gasoline	--	6,933	375	--	-15	--	--	44	7,278
Leaded	--	398	2	--	-29	--	--	5	424
Unleaded	--	6,535	373	--	15	--	--	39	6,855
Finished Aviation Gasoline	--	25	(s)	--	-1	--	--	0	26
Jet Fuel	--	1,408	115	--	30	--	--	24	1,468
Naphtha-Type	--	180	2	--	-3	--	--	5	179
Kerosene-Type	--	1,228	113	--	33	--	--	19	1,289
Kerosene	--	72	6	--	3	--	--	1	74
Distillate Fuel Oil	--	2,921	304	--	105	--	--	63	3,057
Residual Fuel Oil	--	972	560	--	18	--	--	209	1,305
Naphtha for Petro. Feed. Use	--	131	77	--	-2	--	--	5	205
Other Oils for Petro. Feed. Use	--	269	100	--	(s)	--	--	21	347
Special Naphthas	--	57	9	--	(s)	--	--	8	58
Lubricants	--	166	9	--	-7	--	--	19	164
Waxes	--	17	1	--	-1	--	--	2	17
Petroleum Coke	--	551	2	--	-4	--	--	232	325
Asphalt and Road Oil	--	449	30	--	3	--	--	2	474
Still Gas	--	684	0	--	0	--	--	0	684
Miscellaneous Products	--	64	2	--	-1	--	--	2	65
Total	8,880	15,265	8,506	276	484	(s)	14,604	776	17,063

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 887	--	36,360	2,616	1,009	1,034	0	39,838	0	0	16,662
Natural Gas Liquids and LRGs	835	1,625	420	--	2,697	29	--	28	125	5,395	5,303
Pentanes Plus	125	--	202	--	0	52	--	0	0	275	87
Liquefied Petroleum Gases	710	1,625	218	--	2,697	-23	--	28	125	5,120	5,216
Ethane/Ethylene	225	133	0	--	0	-4	--	0	2	360	14
Propane/Propylene	317	1,182	131	--	2,733	2	--	0	55	4,306	3,367
Normal Butane/Butylene	125	333	69	--	-36	-41	--	0	68	464	1,760
Isobutane	43	-23	18	--	0	20	--	28	0	-10	75
Other Liquids	141	--	4,875	--	146	-1,794	--	8,507	0	-1,551	18,563
Other Hydrocarbons/Alcohol	141	--	0	--	0	-18	--	159	0	0	165
Unfinished Oils	--	--	3,526	--	213	-1,330	--	7,312	0	-2,243	13,866
Motor Gasoline Blend. Comp.	--	--	1,349	--	-67	-446	--	1,036	0	692	4,532
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	48,806	36,349	--	78,025	2,537	--	--	1,267	159,376	159,872
Finished Motor Gasoline	--	22,119	8,932	--	45,793	-1,222	--	--	6	78,060	54,942
Leaded	--	327	0	--	260	-36	--	--	(s)	623	115
Unleaded	--	21,792	8,932	--	45,533	-1,186	--	--	6	77,437	54,827
Finished Aviation Gasoline	--	21	2	--	187	-14	--	--	0	224	254
Jet Fuel	--	2,195	1,704	--	11,666	-1,167	--	--	41	16,691	12,553
Naphtha-Type	--	414	0	--	438	-23	--	--	0	875	836
Kerosene-Type	--	1,781	1,704	--	11,228	-1,144	--	--	41	15,816	11,717
Kerosene	--	94	23	--	254	202	--	--	4	165	2,587
Distillate Fuel Oil	--	11,368	8,445	--	18,303	6,242	--	--	18	31,856	57,905
Residual Fuel Oil	--	3,209	15,499	--	800	-891	--	--	275	20,124	20,605
Petrochemical Feedstocks[e]	--	335	154	--	-119	-115	--	--	87	398	166
Special Naphthas	--	253	9	--	325	-30	--	--	10	607	612
Lubricants	--	825	237	--	346	-285	--	--	253	1,440	2,878
Waxes	--	94	46	--	2	2	--	--	10	130	54
Petroleum Coke	--	1,302	0	--	0	-169	--	--	466	1,005	665
Asphalt and Road Oil	--	4,502	1,241	--	417	69	--	--	87	6,004	5,964
Still Gas	--	2,089	0	--	0	0	--	--	0	2,089	0
Miscellaneous Products	--	400	57	--	51	-85	--	--	10	583	687
Total	1,863	50,431	78,004	2,616	81,877	1,806	0	48,373	1,392	163,220	200,400

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 31	--	1,264	21	20	14	(s)	1,323	(s)	0
Natural Gas Liquids and LRGs	24	49	38	--	82	10	--	2	3	178
Pentanes Plus	4	--	3	--	0	(s)	--	(s)	(s)	7
Liquefied Petroleum Gases	21	49	35	--	82	10	--	2	3	171
Ethane/Ethylene	6	4	0	--	0	(s)	--	0	(s)	10
Propane/Propylene	9	36	32	--	81	7	--	0	1	151
Normal Butane/Butylene	4	8	2	--	(s)	4	--	1	2	8
Isobutane	1	(s)	(s)	--	2	(s)	--	1	0	2
Other Liquids	2	--	170	--	12	7	--	152	0	26
Other Hydrocarbons/Alcohol	2	--	0	--	0	(s)	--	2	0	0
Unfinished Oils	--	--	110	--	5	6	--	140	0	-30
Motor Gasoline Blend. Comp.	--	--	60	--	7	(s)	--	10	0	56
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,491	1,259	--	2,402	117	--	--	32	5,001
Finished Motor Gasoline	--	651	330	--	1,422	10	--	--	1	2,393
Leaded	--	9	0	--	5	-4	--	--	(s)	17
Unleaded	--	643	330	--	1,417	14	--	--	1	2,376
Finished Aviation Gasoline	--	(s)	(s)	--	3	(s)	--	--	0	4
Jet Fuel	--	94	82	--	345	9	--	--	(s)	512
Naphtha-Type	--	14	0	--	16	-2	--	--	(s)	32
Kerosene-Type	--	80	82	--	329	11	--	--	(s)	480
Kerosene	--	7	4	--	11	1	--	--	(s)	20
Distillate Fuel Oil	--	354	289	--	559	94	--	--	1	1,107
Residual Fuel Oil	--	140	505	--	28	7	--	--	12	653
Petrochemical Feedstocks[e]	--	12	9	--	-4	-1	--	--	1	17
Special Naphthas	--	4	(s)	--	9	-1	--	--	(s)	14
Lubricants	--	21	8	--	15	-1	--	--	6	39
Waxes	--	2	1	--	(s)	(s)	--	--	(s)	3
Petroleum Coke	--	42	0	--	0	-1	--	--	9	34
Asphalt and Road Oil	--	89	29	--	11	(s)	--	--	1	128
Still Gas	--	63	0	--	0	0	--	--	0	63
Miscellaneous Products	--	10	2	--	2	-1	--	--	(s)	14
Total	58	1,540	2,731	21	2,516	148	(s)	1,477	36	5,205

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990

(Thousand Barrels)

Commodity	Supply					Disposition						Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]		
Crude Oil	**E 23,151**	**--**	**15,624**	**-5,637**	**63,816**	**-3,284**	**0**	**99,892**	**346**	**0**		**80,122**
Natural Gas Liquids and LRGs	**8,949**	**3,871**	**1,847**	**--**	**1,818**	**1,982**	**--**	**3,162**	**390**	**10,951**		**37,332**
Pentanes Plus	1,493	--	39	--	799	413	--	1,392	0	526		2,857
Liquefied Petroleum Gases	7,456	3,871	1,808	--	1,019	1,569	--	1,770	390	10,425		34,475
Ethane/Ethylene	2,450	16	0	--	-788	-24	--	0	0	1,702		4,749
Propane/Propylene	3,217	3,342	1,378	--	986	390	--	69	153	8,311		18,399
Normal Butane/Butylene	1,145	463	427	--	206	1,432	--	145	238	426		8,615
Isobutane	644	50	3	--	615	-229	--	1,556	0	-15		2,712
Other Liquids	**96**	**--**	**1**	**--**	**267**	**133**	**--**	**1,848**	**0**	**-1,617**		**25,597**
Other Hydrocarbons/Alcohol	96	--	0	–	0	-16	--	112	0	0		247
Unfinished Oils	--	--	0	--	10	321	--	767	0	-1,078		17,071
Motor Gasoline Blend. Comp.	--	--	1	--	257	-217	--	1,014	0	-539		8,172
Aviation Gasoline Blend. Comp.	--	–	0	--	0	45	--	-45	0	0		107
Finished Petroleum Products	**--**	**105,593**	**688**	**--**	**22,650**	**-6,516**	**--**	**--**	**918**	**134,529**		**105,981**
Finished Motor Gasoline	--	56,898	145	--	13,077	-1,420	--	--	270	71,270		47,550
Leaded	--	2,444	0	--	-122	227	--	--	0	2,095		3,428
Unleaded	--	54,454	145	--	13,199	-1,647	--	--	270	69,175		44,122
Finished Aviation Gasoline	--	111	0	--	135	8	--	--	0	238		472
Jet Fuel	--	5,530	54	--	3,496	-616	--	--	12	9,684		9,469
Naphtha-Type	--	431	54	--	154	-137	--	--	(s)	776		850
Kerosene-Type	--	5,099	0	--	3,342	-479	--	--	12	8,908		8,619
Kerosene	--	297	0	--	-12	97	--	--	(s)	188		1,654
Distillate Fuel Oil	--	22,600	224	--	5,764	-1,233	--	--	28	29,793		30,369
Residual Fuel Oil	--	2,133	58	--	-357	200	--	--	(s)	1,634		3,774
Petrochemical Feedstocks[e]	--	1,462	67	--	80	63	--	--	0	1,546		387
Special Naphthas	--	452	51	--	56	-178	--	--	33	704		551
Lubricants	--	760	23	--	138	-214	--	--	37	1,098		1,906
Waxes	--	97	4	--	0	51	--	--	3	47		173
Petroleum Coke	--	3,820	0	--	0	-431	--	--	505	3,746		1,788
Asphalt and Road Oil	--	6,157	49	--	283	-2,830	--	--	29	9,290		7,667
Still Gas	--	4,833	0	--	0	0	--	--	0	4,833		0
Miscellaneous Products	--	443	13	--	-10	-13	--	--	2	457		221
Total	**32,196**	**109,464**	**18,160**	**-5,637**	**88,551**	**-7,685**	**0**	**104,902**	**1,654**	**143,862**		**249,032**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 739	--	479	-29	1,896	40	0	3,031	13	0
Natural Gas Liquids and LRGs	275	111	73	--	55	58	--	112	10	335
Pentanes Plus	46	--	1	--	17	-1	--	43	0	22
Liquefied Petroleum Gases	229	111	72	--	37	59	--	68	10	313
Ethane/Ethylene	66	1	0	--	-20	2	--	(s)	(s)	45
Propane/Propylene	105	101	54	--	40	36	--	2	5	257
Normal Butane/Butylene	37	8	15	--	-2	19	--	22	4	13
Isobutane	21	1	2	--	19	1	--	44	0	-2
Other Liquids	4	--	(s)	--	(s)	3	--	48	0	-46
Other Hydrocarbons/Alcohol	4	--	0	--	0	(s)	--	4	0	0
Unfinished Oils	--	--	0	--	-1	(s)	--	22	0	-23
Motor Gasoline Blend. Comp.	--	--	(s)	--	1	2	--	22	0	-23
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	3,220	19	--	703	-10	--	--	17	3,935
Finished Motor Gasoline	--	1,723	5	--	441	-10	--	--	2	2,177
Leaded	--	77	0	--	5	-9	--	--	(s)	91
Unleaded	--	1,646	5	--	437	(s)	--	--	2	2,086
Finished Aviation Gasoline	--	3	0	--	3	(s)	--	--	0	7
Jet Fuel	--	189	2	--	94	5	--	--	(s)	280
Naphtha-Type	--	14	2	--	4	-1	--	--	(s)	20
Kerosene-Type	--	175	(s)	--	91	5	--	--	(s)	260
Kerosene	--	14	0	--	(s)	(s)	--	--	(s)	14
Distillate Fuel Oil	--	712	6	--	155	-2	--	--	2	874
Residual Fuel Oil	--	70	2	--	-13	1	--	--	1	57
Petrochemical Feedstocks[e]	--	37	2	--	3	1	--	--	(s)	41
Special Naphthas	--	16	1	--	4	(s)	--	--	1	21
Lubricants	--	26	1	--	9	-1	--	--	1	35
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	122	0	--	0	-6	--	--	10	119
Asphalt and Road Oil	--	149	(s)	--	6	3	--	--	1	152
Still Gas	--	142	0	--	0	0	--	--	0	142
Miscellaneous Products	--	14	(s)	--	(s)	(s)	--	--	(s)	15
Total	1,019	3,332	572	-29	2,653	92	0	3,191	40	4,224

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990

(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 100,580	--	139,010	10,789	-50,105	3,311	0	196,963	0	0	771,086
Natural Gas Liquids and LRGs	32,562	9,852	4,086	--	-2,752	7,566	--	7,799	584	27,799	83,381
Pentanes Plus	6,104	--	0	--	-517	-385	--	3,162	26	2,784	5,627
Liquefied Petroleum Gases	26,458	9,852	4,086	--	-2,235	7,951	--	4,637	559	25,014	77,754
Ethane/Ethylene	11,367	345	0	--	1,368	-155	--	0	0	13,235	15,634
Propane/Propylene	9,302	6,969	1,802	--	-3,293	3,225	--	174	298	11,083	29,637
Normal Butane/Butylene	1,926	2,219	1,471	--	129	3,912	--	1,241	261	331	25,099
Isobutane	3,863	319	813	--	-439	969	--	3,222	0	365	7,384
Other Liquids	1,357	--	7,822	--	-513	943	--	10,795	0	-3,072	70,374
Other Hydrocarbons/Alcohol	1,357	--	0	--	0	20	--	1,337	0	0	537
Unfinished Oils	--	--	7,822	--	-323	1,029	--	11,597	0	-5,127	53,080
Motor Gasoline Blend. Comp.	--	--	0	--	-190	-109	--	-2,136	0	2,055	16,677
Aviation Gasoline Blend. Comp.	--	--	0	--	0	3	--	-3	0	0	80
Finished Petroleum Products	--	215,927	6,656	--	-103,296	-6,734	--	--	9,541	116,480	126,606
Finished Motor Gasoline	--	99,183	0	--	-60,182	-4,906	--	--	1,748	42,159	45,002
Leaded	--	1,772	0	--	-178	-25	--	--	140	1,479	936
Unleaded	--	97,411	0	--	-60,004	-4,881	--	--	1,609	40,679	44,066
Finished Aviation Gasoline	--	589	0	--	-352	24	--	--	0	213	591
Jet Fuel	--	21,766	297	--	-16,125	-1,091	--	--	791	6,238	17,090
Naphtha-Type	--	3,012	0	--	-776	-502	--	--	225	2,513	2,084
Kerosene-Type	--	18,754	297	--	-15,349	-589	--	--	566	3,725	15,006
Kerosene	--	1,316	0	--	-242	-278	--	--	2	1,350	1,615
Distillate Fuel Oil	--	43,890	0	--	-24,314	619	--	--	1,290	17,667	29,097
Residual Fuel Oil	--	10,955	1,284	--	-443	73	--	--	1,306	10,417	14,683
Petrochemical Feedstocks[e]	--	10,230	4,875	--	39	-688	--	--	453	15,379	2,684
Special Naphthas	--	1,084	104	--	-381	185	--	--	50	572	1,605
Lubricants	--	3,050	37	--	-553	-683	--	--	250	2,967	5,187
Waxes	--	269	1	--	-2	-35	--	--	26	277	398
Petroleum Coke	--	7,974	0	--	0	558	--	--	3,542	3,874	3,259
Asphalt and Road Oil	--	4,148	58	--	-700	-773	--	--	2	4,277	3,951
Still Gas	--	10,228	0	--	0	0	--	--	0	10,228	0
Miscellaneous Products	--	1,245	0	--	-41	261	--	--	81	862	1,444
Total	134,499	225,779	157,574	10,789	-156,666	5,086	0	215,557	10,126	141,206	1,051,447

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 3,292	--	4,194	255	-1,505	121	(s)	6,116	0	0
Natural Gas Liquids and LRGs	1,023	321	75	--	-80	101	--	247	17	974
Pentanes Plus	190	--	1	--	-9	2	--	101	1	78
Liquefied Petroleum Gases	833	321	73	--	-72	98	--	146	15	897
Ethane/Ethylene	348	8	4	--	38	-14	--	(s)	0	411
Propane/Propylene	300	222	31	--	-105	37	--	6	10	394
Normal Butane/Butylene	66	81	27	--	11	66	--	45	5	68
Isobutane	120	11	12	--	-15	9	--	95	0	24
Other Liquids	49	--	283	--	-15	12	--	386	0	-81
Other Hydrocarbons/Alcohol	49	--	0	--	0	1	--	48	0	0
Unfinished Oils	--	--	274	--	-7	1	--	380	0	-114
Motor Gasoline Blend. Comp.	--	--	9	--	-8	10	--	-42	0	34
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	6,733	252	--	-3,183	32	--	--	298	3,471
Finished Motor Gasoline	--	3,127	21	--	-1,908	-3	--	--	38	1,206
Leaded	--	76	(s)	--	-14	-8	--	--	5	64
Unleaded	--	3,052	21	--	-1,894	4	--	--	33	1,142
Finished Aviation Gasoline	--	14	0	--	-7	(s)	--	--	0	8
Jet Fuel	--	691	23	--	-467	19	--	--	13	216
Naphtha-Type	--	97	0	--	-24	1	--	--	1	71
Kerosene-Type	--	594	23	--	-443	17	--	--	11	145
Kerosene	--	47	2	--	-10	2	--	--	(s)	36
Distillate Fuel Oil	--	1,298	2	--	-720	17	--	--	41	522
Residual Fuel Oil	--	369	29	--	-16	4	--	--	51	328
Petrochemical Feedstocks[e]	--	340	165	--	1	-1	--	--	17	489
Special Naphthas	--	33	7	--	-13	(s)	--	--	4	24
Lubricants	--	99	(s)	--	-23	-6	--	--	9	73
Waxes	--	9	(s)	--	(s)	(s)	--	--	1	9
Petroleum Coke	--	240	1	--	0	2	--	--	123	116
Asphalt and Road Oil	--	115	1	--	-18	(s)	--	--	(s)	98
Still Gas	--	315	0	--	0	0	--	--	0	315
Miscellaneous Products	--	34	(s)	--	-2	(s)	--	--	1	31
Total	4,364	7,054	4,803	255	-4,784	266	(s)	6,748	315	4,365

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990

(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 15,094	--	2,480	1,376	-4,183	-992	0	15,759	0	0	11,589
Natural Gas Liquids and LRGs	3,616	297	327	--	-1,763	93	--	553	4	1,827	1,212
Pentanes Plus	756	--	125	--	-282	-12	--	160	0	451	141
Liquefied Petroleum Gases	2,860	297	202	--	-1,481	105	--	393	4	1,376	1,071
Ethane/Ethylene	855	0	0	--	-580	6	--	0	0	269	139
Propane/Propylene	1,262	240	67	--	-426	40	--	0	2	1,101	448
Normal Butane/Butylene	521	69	115	--	-299	46	--	289	2	69	342
Isobutane	222	-12	20	--	-176	13	--	104	0	-63	142
Other Liquids	97	--	0	--	0	-250	--	323	0	24	3,613
Other Hydrocarbons/Alcohol	97	--	0	--	0	88	--	9	0	0	158
Unfinished Oils	--	--	0	--	0	-113	--	18	0	95	1,942
Motor Gasoline Blend. Comp.	--	--	0	--	0	-225	--	296	0	-71	1,513
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	16,616	141	--	-640	-1,388	--	--	63	17,442	9,907
Finished Motor Gasoline	--	8,290	65	--	-320	-83	--	--	0	8,118	4,353
Leaded	--	2,031	16	--	-313	-83	--	--	0	1,817	1,313
Unleaded	--	6,259	49	--	-7	0	--	--	0	6,301	3,040
Finished Aviation Gasoline	--	44	0	--	30	-1	--	--	0	75	49
Jet Fuel	--	1,202	0	--	357	42	--	--	0	1,517	1,033
Naphtha-Type	--	431	0	--	-135	46	--	--	0	250	288
Kerosene-Type	--	771	0	--	492	-4	--	--	0	1,267	745
Kerosene	--	-36	0	--	0	-39	--	--	0	3	31
Distillate Fuel Oil	--	4,235	76	--	-707	-594	--	--	0	4,198	2,529
Residual Fuel Oil	--	282	0	--	0	-6	--	--	0	288	521
Petrochemical Feedstocks[e]	--	6	0	--	0	1	--	--	0	5	3
Special Naphthas	--	0	0	--	0	0	--	--	0	0	7
Lubricants	--	-8	0	--	0	-26	--	--	8	10	47
Waxes	--	67	0	--	0	27	--	--	(s)	40	119
Petroleum Coke	--	359	0	--	0	7	--	--	55	297	33
Asphalt and Road Oil	--	1,399	0	--	0	-716	--	--	0	2,115	1,168
Still Gas	--	709	0	--	0	0	--	--	0	709	0
Miscellaneous Products	--	67	0	--	0	0	--	--	(s)	67	14
Total	18,807	16,913	2,948	1,376	-6,586	-2,537	0	16,635	67	19,293	26,321

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 499	--	72	29	-137	-3	0	466	(s)	0
Natural Gas Liquids and LRGs	115	8	8	--	-57	(s)	--	18	(s)	56
Pentanes Plus	24	--	3	--	-9	(s)	--	5	0	13
Liquefied Petroleum Gases	91	8	5	--	-48	(s)	--	13	(s)	43
Ethane/Ethylene	24	(s)	0	--	-17	(s)	--	0	0	6
Propane/Propylene	42	7	3	--	-16	(s)	--	(s)	(s)	37
Normal Butane/Butylene	17	2	2	--	-10	(s)	--	10	(s)	1
Isobutane	8	(s)	(s)	--	-6	(s)	--	3	0	-1
Other Liquids	1	--	(s)	--	0	-5	--	4	0	2
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	1	0	0
Unfinished Oils	--	--	(s)	--	0	-2	--	-1	0	4
Motor Gasoline Blend. Comp.	--	--	0	--	0	-3	--	4	0	-2
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	(s)	0	(s)
Finished Petroleum Products	--	490	3	--	-22	-10	--	--	(s)	481
Finished Motor Gasoline	--	243	1	--	-16	-4	--	--	(s)	232
Leaded	--	61	(s)	--	-12	-3	--	--	(s)	52
Unleaded	--	183	1	--	-4	(s)	--	--	(s)	180
Finished Aviation Gasoline	--	1	0	--	1	(s)	--	--	0	1
Jet Fuel	--	40	0	--	10	(s)	--	--	(s)	50
Naphtha-Type	--	14	0	--	-6	(s)	--	--	0	8
Kerosene-Type	--	26	0	--	16	(s)	--	--	(s)	42
Kerosene	--	(s)	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	126	2	--	-16	-3	--	--	(s)	115
Residual Fuel Oil	--	10	(s)	--	0	(s)	--	--	0	11
Petrochemical Feedstocks[e]	--	(s)	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Lubricants	--	(s)	0	--	0	(s)	--	--	(s)	1
Waxes	--	1	0	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	10
Asphalt and Road Oil	--	34	0	--	0	-2	--	--	(s)	37
Still Gas	--	21	0	--	0	0	--	--	0	21
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	615	498	83	29	-216	-18	0	488	1	539

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, August 1990
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 83,966	--	5,905	1,656	-10,537	-7,092	1	85,879	1,645	557	79,714
Natural Gas Liquids and LRGs	2,449	2,317	83	--	0	929	--	1,926	245	1,749	4,391
Pentanes Plus	1,384	--	0	--	0	181	--	917	2	284	268
Liquefied Petroleum Gases	1,065	2,317	83	--	0	748	--	1,009	242	1,466	4,123
Ethane/Ethylene	1	44	0	--	0	0	--	0	(s)	45	0
Propane/Propylene	303	1,151	37	--	0	286	--	5	240	960	1,022
Normal Butane/Butylene	587	1,032	20	--	0	533	--	600	2	504	2,731
Isobutane	174	90	26	--	0	-71	--	404	0	-43	370
Other Liquids	335	--	215	--	100	-1,569	--	3,789	0	-1,570	32,222
Other Hydrocarbons/Alcohol	335	--	0	--	0	-55	--	390	0	0	254
Unfinished Oils	--	--	200	--	100	-1,306	--	3,206	0	-1,600	25,071
Motor Gasoline Blend. Comp.	--	--	15	--	0	-217	--	202	0	30	6,885
Aviation Gasoline Blend. Comp.	--	--	0	--	0	9	--	-9	0	0	12
Finished Petroleum Products	--	94,390	2,419	--	3,261	1,175	--	--	11,212	87,683	57,223
Finished Motor Gasoline	--	40,290	563	--	1,632	822	--	--	356	41,307	21,702
Leaded	--	6,145	184	--	353	-77	--	--	8	6,751	4,803
Unleaded	--	34,145	379	--	1,279	899	--	--	348	34,556	16,899
Finished Aviation Gasoline	--	296	3	--	0	125	--	--	0	174	448
Jet Fuel	--	12,700	518	--	606	173	--	--	308	13,343	8,087
Naphtha-Type	--	1,097	6	--	319	1	--	--	(s)	1,421	1,661
Kerosene-Type	--	11,603	512	--	287	172	--	--	308	11,922	6,426
Kerosene	--	101	0	--	0	10	--	--	2	89	62
Distillate Fuel Oil	--	14,970	319	--	954	809	--	--	254	15,180	11,193
Residual Fuel Oil	--	12,715	950	--	0	-143	--	--	7,108	6,700	8,650
Petrochemical Feedstocks[e]	--	349	35	--	0	8	--	--	152	224	240
Special Naphthas	--	79	11	--	0	-21	--	--	297	-186	135
Lubricants	--	747	0	--	69	173	--	--	92	551	1,999
Waxes	--	-38	0	--	0	-110	--	--	16	58	121
Petroleum Coke	--	4,604	19	--	0	76	--	--	2,545	2,002	1,823
Asphalt and Road Oil	--	2,399	1	--	0	-713	--	--	17	3,096	2,585
Still Gas	--	5,058	0	--	0	0	--	--	0	5,058	0
Miscellaneous Products	--	120	0	--	0	-34	--	--	63	91	178
Total	86,750	96,707	8,622	1,656	-7,176	-6,557	1	91,594	13,101	88,420	173,550

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-August 1990
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 2,738	--	251	-1	-274	-15	(s)	2,609	91	29
Natural Gas Liquids and LRGs	72	59	4	--	0	2	--	58	9	66
Pentanes Plus	40	--	0	--	0	1	--	27	(s)	12
Liquefied Petroleum Gases	32	59	4	--	0	1	--	31	9	54
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	(s)	1
Propane/Propylene	10	36	3	--	0	1	--	(s)	9	38
Normal Butane/Butylene	16	21	1	--	0	-1	--	21	(s)	18
Isobutane	5	1	1	--	0	(s)	--	10	0	-3
Other Liquids	14	--	5	--	3	12	--	33	0	-23
Other Hydrocarbons/Alcohol	14	--	0	--	0	1	--	13	0	0
Unfinished Oils	--	--	3	--	3	15	--	18	0	-27
Motor Gasoline Blend. Comp.	--	--	2	--	0	-4	--	2	0	4
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	2,782	56	--	101	-2	--	--	285	2,657
Finished Motor Gasoline	--	1,189	17	--	61	-8	--	--	4	1,270
Leaded	--	176	1	--	17	-5	--	--	(s)	199
Unleaded	--	1,012	15	--	44	-3	--	--	3	1,070
Finished Aviation Gasoline	--	6	(s)	--	(s)	(s)	--	--	0	6
Jet Fuel	--	393	8	--	19	-2	--	--	11	410
Naphtha-Type	--	40	(s)	--	11	-1	--	--	4	48
Kerosene-Type	--	353	8	--	8	-1	--	--	7	362
Kerosene	--	3	0	--	0	(s)	--	--	(s)	3
Distillate Fuel Oil	--	431	4	--	22	-1	--	--	19	440
Residual Fuel Oil	--	382	25	--	1	6	--	--	146	256
Petrochemical Feedstocks[e]	--	11	1	--	0	-1	--	--	8	5
Special Naphthas	--	3	(s)	--	0	(s)	--	--	3	(s)
Lubricants	--	19	(s)	--	-1	1	--	--	3	15
Waxes	--	2	(s)	--	0	-1	--	--	1	2
Petroleum Coke	--	135	1	--	0	1	--	--	90	46
Asphalt and Road Oil	--	62	(s)	--	0	3	--	--	(s)	59
Still Gas	--	143	0	--	0	0	--	--	0	143
Miscellaneous Products	--	4	0	--	0	(s)	--	--	1	4
Total	2,824	2,842	317	-1	-170	-3	(s)	2,701	385	2,729

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	June 1990		January-June 1990	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 909**	**E 30**	**E 5,874**	**E 32**
Florida	470	16	3,191	18
New York	E 32	E 1	E 213	E 1
Pennsylvania	E 210	E 7	E 1,341	E 7
Virginia	E 1	E (s)	E 9	E (s)
West Virginia	165	6	1,084	6
Adjustment[a]	31	1	38	(s)
PAD District II	**E 21,672**	**E 722**	**E 134,082**	**E 741**
Illinois	1,605	54	9,853	54
Indiana	242	8	1,525	8
Kansas	4,410	147	26,945	149
Kentucky	425	14	2,610	14
Michigan	E 1,582	E 53	E 9,921	E 55
Missouri	12	(s)	67	(s)
Nebraska	481	16	2,921	16
North Dakota	2,994	100	18,225	101
Ohio	E 779	E 26	E 4,918	E 27
Oklahoma	8,903	297	54,185	299
South Dakota	130	4	815	5
Tennessee	38	1	262	1
Adjustment[a]	71	2	1,835	10
PAD District III	**E 97,434**	**E 3,248**	**E 598,712**	**E 3,308**
Alabama	1,463	49	9,337	52
Arkansas	E 844	E 28	E 5,254	E 29
Louisiana[b]	E 11,853	E 395	E 73,092	E 404
Mississippi	2,225	74	13,333	74
New Mexico	5,407	180	33,335	184
Texas[b]	54,465	1,816	334,333	1,847
Federal Offshore PAD District III	20,414	680	E 125,697	E 694
Adjustment[a]	763	25	4,334	24
PAD District IV	**14,832**	**494**	**E 90,967**	**E 503**
Colorado	2,468	82	14,768	82
Montana	1,592	53	E 9,745	E 54
Utah	2,270	76	13,947	77
Wyoming	8,512	284	51,736	286
Adjustment[a]	-10	(s)	773	4
PAD District V	**77,427**	**2,581**	**499,032**	**2,757**
Alaska[b]	48,378	1,613	322,715	1,783
South Alaska	835	28	4,067	22
North Slope	47,542	1,585	318,645	1,760
Adjustment for Alaska[a]	1	(s)	2	(s)
Arizona	12	(s)	64	(s)
California[b]	26,253	875	159,346	880
Nevada	337	11	1,920	11
Federal Offshore PAD District V	2,216	74	15,192	84
Adjustment excluding Alaska[a]	231	8	-208	-1
U.S. Total[b]	**E 212,274**	**E 7,076**	**E 1,328,667**	**E 7,341**

[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 3,767; California: State - 1,866; Louisiana: State - E1,764; Texas: State -140; U.S. Total, including Federal offshore - E30,167.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, August 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production			
Natural Gas Liquids	**246**	**589**	**835**	**607**	**430**	**7,912**	**8,949**
Pentanes Plus	53	72	125	131	113	1,249	1,493
Liquefied Petroleum Gases	193	517	710	476	317	6,663	7,456
Ethane	52	173	225	55	0	2,395	2,450
Propane	80	237	317	235	187	2,795	3,217
Normal Butane	46	79	125	102	126	917	1,145
Isobutane	15	28	43	84	4	556	644
				Stocks			
Natural Gas Liquids	**219**	**29**	**248**	**106**	**41**	**1,342**	**1,489**
Pentanes Plus	29	7	36	19	17	117	153
Liquefied Petroleum Gases	190	22	212	87	24	1,225	1,336
Ethane	0	0	0	9	0	390	399
Propane	136	16	152	41	16	529	586
Normal Butane	51	3	54	19	8	244	271
Isobutane	3	3	6	18	0	62	80

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
				Net Production					
Natural Gas Liquids	**17,860**	**2,837**	**7,156**	**655**	**4,054**	**32,562**	**3,616**	**2,449**	**48,411**
Pentanes Plus	3,418	624	1,300	193	569	6,104	756	1,384	9,862
Liquefied Petroleum Gases	14,442	2,213	5,856	462	3,485	26,458	2,860	1,065	38,549
Ethane	5,928	1,171	2,502	88	1,678	11,367	855	1	14,898
Propane	5,304	650	2,003	188	1,157	9,302	1,262	303	14,401
Normal Butane	2,348	-1,548	566	131	429	1,926	521	587	4,304
Isobutane	862	1,940	785	55	221	3,863	222	174	4,946
				Stocks					
Natural Gas Liquids	**922**	**6,110**	**2,457**	**148**	**59**	**9,696**	**175**	**138**	**11,746**
Pentanes Plus	421	714	375	37	12	1,559	60	17	1,825
Liquefied Petroleum Gases	501	5,396	2,082	111	47	8,137	115	121	9,921
Ethane	85	1,193	70	41	3	1,392	7	0	1,798
Propane	167	1,282	454	38	32	1,973	63	110	2,884
Normal Butane	209	2,032	1,098	26	8	3,373	36	7	3,741
Isobutane	40	889	460	6	4	1,399	9	4	1,498

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, August 1990

(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**36,726**	**3,112**	**39,838**	**65,666**	**10,856**	**23,370**	**99,892**
Natural Gas Liquids	**28**	**0**	**28**	**1,906**	**94**	**1,162**	**3,162**
Pentanes Plus	0	0	0	681	0	711	1,392
Liquefied Petroleum Gases	28	0	28	1,225	94	451	1,770
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	69	0	0	69
Normal Butane	0	0	0	105	5	35	145
Isobutane	28	0	28	1,051	89	416	1,556
Other Liquids	**7,998**	**509**	**8,507**	**1,439**	**-1**	**410**	**1,848**
Other Hydrocarbons/Alcohol	152	7	159	103	4	5	112
Unfinished Oils (net)	6,798	514	7,312	429	-81	419	767
Motor Gasoline Blend. Comp. (net)	1,048	-12	1,036	952	76	-14	1,014
Aviation Gasoline Blend. Comp. (net)	0	0	0	-45	0	0	-45
Total Input to Refineries	**44,752**	**3,621**	**48,373**	**69,011**	**10,949**	**24,942**	**104,902**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,036	106	1,143	2,165	351	760	3,275
Operable Capacity (daily average)	1,337	124	1,461	2,194	343	740	3,278
Operable Utilization Rate (percent)[a,b]	77.5	85.6	78.2	98.7	102.2	102.6	99.9
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	483	20	503	794	120	250	1,164
Catalytic Hydrocracking	72	4	76	135	0	7	143
Delayed and Fluid Coking	74	0	74	158	54	57	268
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.41	0.58	1.34	0.92	1.70	0.61	0.93
API Gravity, Weighted Average (degrees)	29.36	38.55	30.09	33.95	32.68	36.10	34.31
Operable Capacity (daily average)	**1,337**	**124**	**1,461**	**2,194**	**343**	**740**	**3,278**
Operating	1,334	124	1,458	2,193	343	740	3,276
Idle	3	0	3	1	0	0	1
Alaskan Crude Oil Receipts	**0**	**0**	**0**	**387**	**0**	**489**	**876**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, August 1990 (Continued)

(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**16,053**	**96,170**	**76,878**	**5,549**	**2,313**	**196,963**	**15,759**	**85,879**	**438,331**
Natural Gas Liquids	**1,306**	**3,184**	**2,876**	**244**	**189**	**7,799**	**553**	**1,926**	**13,468**
Pentanes Plus	897	1,252	733	140	140	3,162	160	917	5,631
Liquefied Petroleum Gases	409	1,932	2,143	104	49	4,637	393	1,009	7,837
Ethane	0	0	0	0	0	0	0	0	0
Propane	1	74	99	0	0	174	0	5	248
Normal Butane	66	336	837	1	1	1,241	289	600	2,275
Isobutane	342	1,522	1,207	103	48	3,222	104	404	5,314
Other Liquids	**562**	**9,197**	**873**	**96**	**67**	**10,795**	**323**	**3,789**	**25,262**
Other Hydrocarbons/Alcohol	157	873	283	3	21	1,337	9	390	2,007
Unfinished Oils (net)	293	10,207	942	112	43	11,597	18	3,206	22,900
Motor Gasoline Blend. Comp. (net)	112	-1,883	-349	-19	3	-2,136	296	202	412
Aviation Gasoline Blend. Comp. (net)	0	0	-3	0	0	-3	0	-9	-57
Total Input to Refineries	**17,921**	**108,551**	**80,627**	**5,889**	**2,569**	**215,557**	**16,635**	**91,594**	**477,061**
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	521	3,116	2,522	173	75	6,407	512	2,888	14,225
Operable Capacity (daily average)	588	3,332	2,922	255	78	7,174	555	3,092	15,559
Operable Utilization Rate (percent)[a,b]	88.5	93.5	86.3	68.1	95.9	89.3	92.2	93.4	91.4
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	196	1,305	794	32	28	2,355	179	730	4,931
Catalytic Hydrocracking	24	166	138	0	0	329	5	409	962
Delayed and Fluid Coking	9	180	367	12	0	569	22	477	1,409
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.70	1.09	1.27	1.49	0.91	1.14	0.99	1.14	1.10
API Gravity, Weighted Average (degrees)	38.20	33.41	31.69	33.75	39.02	33.20	34.59	25.35	31.71
Operable Capacity (daily average)	**588**	**3,332**	**2,922**	**255**	**78**	**7,174**	**555**	**3,092**	**15,559**
Operating	556	3,280	2,583	228	74	6,721	540	3,053	15,048
Idle	32	52	339	27	4	454	15	38	511
Alaskan Crude Oil Receipts	**0**	**5,429**	**2,880**	**0**	**0**	**8,309**	**0**	**45,856**	**55,041**

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[a] Represents gross input divided by operable capacity.
[b] See Table H2 in the Highlights Section for additional information concerning utilization rates.
(s) = Less than 500 barrels.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, August 1990

(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,582	43	1,625	2,871	326	674	3,871
Ethane/Ethylene	133	0	133	16	0	0	16
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,149	33	1,182	2,473	229	640	3,342
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	307	26	333	367	62	34	463
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	-7	-16	-23	15	35	0	50
Finished Motor Gasoline	20,899	1,220	22,119	38,295	5,575	13,028	56,898
Leaded	275	52	327	280	528	1,636	2,444
Unleaded	20,624	1,168	21,792	38,015	5,047	11,392	54,454
Finished Aviation Gasoline	21	0	21	51	35	25	111
Jet Fuel	2,015	180	2,195	3,617	666	1,247	5,530
Naphtha-Type	234	180	414	163	19	249	431
Kerosene-Type	1,781	0	1,781	3,454	647	998	5,099
Kerosene	23	71	94	189	14	94	297
Distillate Fuel Oil	10,250	1,118	11,368	13,590	2,732	6,278	22,600
Residual Fuel Oil	3,127	82	3,209	1,631	309	193	2,133
Less than 0.31 percent sulfur	978	37	1,015	60	0	0	60
0.31 to 1.00 percent sulfur	1,343	45	1,388	209	0	87	296
Greater than 1.00 percent sulfur	806	0	806	1,362	309	106	1,777
Naphtha for Petrochemical Feedstock Use	320	0	320	600	0	42	642
Other Oils for Petrochemical Feedstock Use	15	0	15	734	0	86	820
Special Naphthas	220	33	253	147	0	305	452
Lubricants	504	321	825	514	0	246	760
Naphthenic	176	0	176	0	0	0	0
Paraffinic	328	321	649	514	0	246	760
Waxes	0	94	94	74	0	23	97
Petroleum Coke	1,275	27	1,302	2,454	540	826	3,820
Marketable	426	0	426	1,323	385	526	2,234
Catalyst	849	27	876	1,131	155	300	1,586
Asphalt and Road Oil	4,290	212	4,502	4,070	789	1,298	6,157
Still Gas	1,922	167	2,089	3,258	441	1,134	4,833
Miscellaneous Products	358	42	400	364	33	46	443
Fuel Use	13	0	13	0	0	0	0
Nonfuel Use	345	42	387	364	33	46	443
Total	**46,821**	**3,610**	**50,431**	**72,459**	**11,460**	**25,545**	**109,464**
Processing Gain(-) or Loss(+)[a]	-2,069	11	-2,058	-3,448	-511	-603	-4,562

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, August 1990 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	U. S. Total
Liquefied Refinery Gases	463	5,893	3,248	128	120	9,852	297	2,317	17,962
Ethane/Ethylene	-85	267	163	0	0	345	0	44	538
Ethane	W	W	W	W	W	W	W	W	355
Ethylene	W	W	W	W	W	W	W	W	183
Propane/Propylene	518	4,041	2,258	88	64	6,969	240	1,151	12,884
Propane	W	W	W	W	W	W	W	W	9,648
Propylene	W	W	W	W	W	W	W	W	3,236
Normal Butane/Butylene	-171	1,462	846	36	46	2,219	69	1,032	4,116
Normal Butane	W	W	W	W	W	W	W	W	3,816
Butylene	W	W	W	W	W	W	W	W	300
Isobutane	201	123	-19	4	10	319	-12	90	424
Finished Motor Gasoline	9,737	51,402	34,940	1,728	1,376	99,183	8,290	40,290	226,780
Leaded	557	292	594	3	326	1,772	2,031	6,145	12,719
Unleaded	9,180	51,110	34,346	1,725	1,050	97,411	6,259	34,145	214,061
Finished Aviation Gasoline	186	235	168	0	0	589	44	296	1,061
Jet Fuel	1,815	10,020	9,354	227	350	21,766	1,202	12,700	43,393
Naphtha-Type	671	1,328	561	142	310	3,012	431	1,097	5,385
Kerosene-Type	1,144	8,692	8,793	85	40	18,754	771	11,603	38,008
Kerosene	10	616	666	24	0	1,316	-36	101	1,772
Distillate Fuel Oil	3,697	20,422	17,557	1,670	544	43,890	4,235	14,970	97,063
Residual Fuel Oil	306	5,839	4,463	329	18	10,955	282	12,715	29,294
Less than 0.31 percent sulfur	138	0	704	105	7	954	50	1,224	3,303
0.31 to 1.00 percent sulfur	131	1,766	498	174	11	2,580	47	930	5,241
Greater than 1.00 percent sulfur	37	4,073	3,261	50	0	7,421	185	10,561	20,750
Naphtha for Petrochemical Feedstock Use	95	2,534	144	0	19	2,792	0	69	3,823
Other Oils for Petrochemical Feedstock Use	159	4,089	3,190	0	0	7,438	6	280	8,559
Special Naphthas	103	777	83	121	0	1,084	0	79	1,868
Lubricants	39	1,927	706	378	0	3,050	-8	747	5,374
Naphthenic	39	423	0	253	0	715	0	276	1,167
Paraffinic	0	1,504	706	125	0	2,335	-8	471	4,207
Waxes	12	177	13	67	0	269	67	-38	489
Petroleum Coke	367	3,350	4,097	140	20	7,974	359	4,604	18,059
Marketable	58	1,548	3,165	95	0	4,866	159	3,477	11,162
Catalyst	309	1,802	932	45	20	3,108	200	1,127	6,897
Asphalt and Road Oil	429	1,259	1,476	891	93	4,148	1,399	2,399	18,605
Still Gas	741	5,476	3,724	191	96	10,228	709	5,058	22,917
Miscellaneous Products	51	607	587	0	0	1,245	67	120	2,275
Fuel Use	1	0	83	0	0	84	0	0	97
Nonfuel Use	50	607	504	0	0	1,161	67	120	2,178
Total	**18,210**	**114,623**	**84,416**	**5,894**	**2,636**	**225,779**	**16,913**	**96,707**	**499,294**
Processing Gain(-) or Loss(+)[a]	-289	-6,072	-3,789	-5	-67	-10,222	-278	-5,113	-22,233

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[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, August 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**14,802**	**801**	**15,603**	**9,199**	**2,230**	**2,881**	**14,310**
Petroleum Products	**42,004**	**2,678**	**44,682**	**38,593**	**6,262**	**15,741**	**60,596**
Pentanes Plus	14	0	14	97	0	161	258
Liquefied Petroleum Gases	1,451	21	1,472	3,060	201	533	3,794
Ethane/Ethylene	12	0	12	1	0	0	1
Propane/Propylene	785	2	787	1,865	21	45	1,931
Normal Butane/Butylene	601	14	615	973	80	383	1,436
Isobutane	53	5	58	221	100	105	426
Other Hydrocarbons and Alcohol	159	6	165	205	5	37	247
Unfinished Oils	12,926	940	13,866	11,512	560	4,999	17,071
Naphthas and Lighter	3,393	330	3,723	3,341	227	1,310	4,878
Kerosene and Light Gas Oils	2,409	151	2,560	1,588	51	246	1,885
Heavy Gas Oils	5,961	330	6,291	3,483	279	2,234	5,996
Residuum	1,163	129	1,292	3,100	3	1,209	4,312
Motor Gasoline Blending Components	4,303	103	4,406	4,403	840	2,034	7,277
Aviation Gasoline Blending Components	0	0	0	69	0	38	107
Finished Motor Gasoline	7,760	305	8,065	5,695	1,209	2,648	9,552
Leaded	15	16	31	92	133	454	679
Unleaded	7,745	289	8,034	5,603	1,076	2,194	8,873
Finished Aviation Gasoline	17	0	17	45	38	26	109
Jet Fuel	2,085	104	2,189	1,409	294	524	2,227
Naphtha-Type	142	104	246	258	27	120	405
Kerosene-Type	1,943	0	1,943	1,151	267	404	1,822
Kerosene	88	63	151	499	101	295	895
Distillate Fuel Oil	7,627	361	7,988	4,274	1,496	2,506	8,276
Residual Fuel Oil	2,133	75	2,208	2,006	328	180	2,514
Less than 0.31 percent sulfur	782	64	846	12	0	0	12
0.31 to 1.00 percent sulfur	853	11	864	329	0	87	416
Greater than 1.00 percent sulfur	498	0	498	1,665	328	93	2,086
Naphtha for Petrochemical Feedstock Use	162	0	162	255	0	76	331
Other Oils for Petrochemical Feedstock Use	4	0	4	0	0	56	56
Special Naphthas	71	34	105	77	0	174	251
Lubricants	432	311	743	882	0	0	882
Waxes	0	54	54	155	0	18	173
Petroleum Coke (Marketable)	665	0	665	974	366	448	1,788
Asphalt and Road Oil	1,949	267	2,216	2,815	818	974	4,607
Miscellaneous Products	158	34	192	161	6	14	181
Total Stocks, All Oils	**56,806**	**3,479**	**60,285**	**47,792**	**8,492**	**18,622**	**74,906**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, August 1990 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	**1,473**	**29,141**	**17,692**	**1,328**	**369**	**50,003**	**1,820**	**24,098**	**105,834**
Petroleum Products	**10,508**	**78,887**	**51,749**	**4,537**	**1,194**	**146,875**	**9,547**	**62,219**	**323,919**
Pentanes Plus	193	217	98	16	17	541	2	15	830
Liquefied Petroleum Gases	2,486	3,656	4,932	90	71	11,235	420	1,061	17,982
Ethane/Ethylene	54	709	0	0	0	763	0	0	776
Propane/Propylene	1,217	1,422	1,035	5	8	3,687	124	81	6,610
Normal Butane/Butylene	903	989	3,335	77	56	5,360	211	734	8,356
Isobutane	312	536	562	8	7	1,425	85	246	2,240
Other Hydrocarbons and Alcohol	77	317	103	1	39	537	158	254	1,361
Unfinished Oils	2,608	29,619	19,790	817	246	53,080	1,942	25,071	111,030
Naphthas and Lighter	992	7,206	4,789	235	44	13,266	529	4,430	26,826
Kerosene and Light Gas Oils	415	6,056	2,523	72	9	9,075	376	4,185	18,081
Heavy Gas Oils	694	10,568	8,687	453	193	20,595	731	12,492	46,105
Residuum	507	5,789	3,791	57	0	10,144	306	3,964	20,018
Motor Gasoline Blending Components	942	8,669	5,786	156	195	15,748	1,450	6,844	35,725
Aviation Gasoline Blending Components	0	0	80	0	0	80	0	12	199
Finished Motor Gasoline	1,455	9,414	4,647	548	136	16,200	1,744	8,407	43,968
Leaded	155	125	55	1	45	381	590	1,702	3,383
Unleaded	1,300	9,289	4,592	547	91	15,819	1,154	6,705	40,585
Finished Aviation Gasoline	92	296	130	0	0	518	35	169	848
Jet Fuel	617	4,843	3,159	145	176	8,940	569	4,053	17,978
Naphtha-Type	247	724	348	96	98	1,513	218	646	3,028
Kerosene-Type	370	4,119	2,811	49	78	7,427	351	3,407	14,950
Kerosene	28	520	388	37	0	973	10	50	2,079
Distillate Fuel Oil	981	9,104	4,187	775	112	15,159	1,359	5,148	37,930
Residual Fuel Oil	293	3,820	3,407	230	22	7,772	521	5,654	18,669
Less than 0.31 percent sulfur	60	0	1,378	4	18	1,460	36	496	2,850
0.31 to 1.00 percent sulfur	64	898	418	155	4	1,539	312	652	3,783
Greater than 1.00 percent sulfur	169	2,922	1,611	71	0	4,773	173	4,506	12,036
Naphtha for Petrochemical Feedstock Use	15	627	189	0	10	841	0	117	1,451
Other Oils for Petrochemical Feedstock Use	141	1,450	252	0	0	1,843	3	123	2,029
Special Naphthas	95	1,200	17	101	0	1,413	7	90	1,866
Lubricants	10	3,176	966	337	0	4,489	39	1,119	7,272
Waxes	9	219	151	19	0	398	119	121	865
Petroleum Coke (Marketable)	17	508	2,376	358	0	3,259	33	1,823	7,568
Asphalt and Road Oil	421	893	679	907	170	3,070	1,122	1,999	13,014
Miscellaneous Products	28	339	412	0	0	779	14	89	1,255
Total Stocks, All Oils	**11,981**	**108,028**	**69,441**	**5,865**	**1,563**	**196,878**	**11,367**	**86,317**	**429,753**

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] August 1990

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	3.6	1.2	3.4	4.3	3.0	2.8	3.8
Finished Motor Gasoline[b]	45.2	33.8	44.3	53.5	50.1	49.9	52.3
Finished Aviation Gasoline[c]	0.0	0.0	0.0	0.1	0.3	0.1	0.2
Naphtha-Type Jet Fuel	0.5	5.0	0.9	0.2	0.2	1.0	0.4
Kerosene-Type Jet Fuel	4.1	0.0	3.8	5.2	6.0	4.2	5.1
Kerosene	0.1	2.0	0.2	0.3	0.1	0.4	0.3
Distillate Fuel Oil	23.6	30.8	24.1	20.6	25.4	26.4	22.5
Residual Fuel Oil	7.2	2.3	6.8	2.5	2.9	0.8	2.1
Naphtha for Petrochemical Feedstock Use	0.7	0.0	0.7	0.9	0.0	0.2	0.6
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.1	0.0	0.4	0.8
Special Naphthas	0.5	0.9	0.5	0.2	0.0	1.3	0.4
Lubricants	1.2	8.9	1.7	0.8	0.0	1.0	0.8
Waxes	0.0	2.6	0.2	0.1	0.0	0.1	0.1
Petroleum Coke	2.9	0.7	2.8	3.7	5.0	3.5	3.8
Asphalt and Road Oil	9.9	5.8	9.5	6.2	7.3	5.5	6.1
Still Gas	4.4	4.6	4.4	4.9	4.1	4.8	4.8
Miscellaneous Products	0.8	1.2	0.8	0.6	0.3	0.2	0.4
Processing Gain(-) or Loss(+)[d]	-4.8	0.3	-4.4	-5.2	-4.7	-2.5	-4.5

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	2.8	5.5	4.2	2.3	5.1	4.7	1.9	2.6	3.9
Finished Motor Gasoline[b]	49.9	46.3	41.3	26.5	49.4	44.2	47.1	42.4	45.7
Finished Aviation Gasoline[c]	1.1	0.2	0.2	0.0	0.0	0.3	0.3	0.3	0.2
Naphtha-Type Jet Fuel	4.1	1.2	0.7	2.5	13.2	1.4	2.7	1.2	1.2
Kerosene-Type Jet Fuel	7.0	8.2	11.3	1.5	1.7	9.0	4.9	13.0	8.2
Kerosene	0.1	0.6	0.9	0.4	0.0	0.6	-0.2	0.1	0.4
Distillate Fuel Oil	22.6	19.2	22.6	29.5	23.1	21.0	26.8	16.8	21.0
Residual Fuel Oil	1.9	5.5	5.7	5.8	0.8	5.3	1.8	14.3	6.4
Naphtha for Petrochemical Feedstock Use	0.6	2.4	0.2	0.0	0.8	1.3	0.0	0.1	0.8
Other Oils for Petrochemical Feedstock Use	1.0	3.8	4.1	0.0	0.0	3.6	0.0	0.3	1.9
Special Naphthas	0.6	0.7	0.1	2.1	0.0	0.5	0.0	0.1	0.4
Lubricants	0.2	1.8	0.9	6.7	0.0	1.5	-0.1	0.8	1.2
Waxes	0.1	0.2	0.0	1.2	0.0	0.1	0.4	0.0	0.1
Petroleum Coke	2.2	3.1	5.3	2.5	0.8	3.8	2.3	5.2	3.9
Asphalt and Road Oil	2.6	1.2	1.9	15.7	3.9	2.0	8.9	2.7	4.0
Still Gas	4.5	5.1	4.8	3.4	4.1	4.9	4.5	5.7	5.0
Miscellaneous Products	0.3	0.6	0.8	0.0	0.0	0.6	0.4	0.1	0.5
Processing Gain(-) or Loss(+)[d]	-1.8	-5.7	-4.9	-0.1	-2.8	-4.9	-1.8	-5.7	-4.8

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[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, August 1990
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**2,774**	**3,553**	**9,172**	**15,499**
Delaware	0	0	45	45
Florida	0	1,423	762	2,185
Georgia	0	0	151	151
Maine	0	191	361	552
Maryland	0	0	1,019	1,019
Massachusetts	0	0	1,235	1,235
New Jersey	1,095	324	1,662	3,081
New York	1,271	872	2,758	4,901
North Carolina	0	0	504	504
Pennsylvania	408	356	274	1,038
Vermont	0	0	5	5
Virginia	0	387	396	783
PAD District II	**0**	**31**	**27**	**58**
North Dakota	0	31	27	58
PAD District III	**635**	**334**	**315**	**1,284**
Louisiana	183	0	215	398
Texas	452	334	100	886
PAD District V	**731**	**219**	**0**	**950**
California	731	0	0	731
Washington	0	219	0	219
U.S. Total	**4,140**	**4,137**	**9,514**	**17,791**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, August 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	**36,360**	**38,926**	**115,708**	**2,480**	**5,905**	**199,379**	**6,432**
Natural Gas Liquids	**420**	**1,847**	**4,086**	**327**	**83**	**6,763**	**218**
Pentanes Plus	202	39	0	125	0	366	12
Liquefied Petroleum Gases	218	1,808	4,086	202	83	6,397	206
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	131	1,378	1,802	67	37	3,415	110
Normal Butane/Butylene	69	427	1,471	115	20	2,102	68
Isobutane	18	3	813	20	26	880	28
Other Liquids	**4,875**	**1**	**7,822**	**0**	**215**	**12,913**	**417**
Unfinished Oils[a]	3,526	0	7,822	0	200	11,548	373
Naphthas and Lighter	29	0	1,849	0	0	1,878	61
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	2,852	0	585	0	0	3,437	111
Residuum	645	0	5,388	0	200	6,233	201
Motor Gasoline Blending Components	1,349	1	0	0	15	1,365	44
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	**36,349**	**688**	**6,656**	**141**	**2,419**	**46,253**	**1,492**
Finished Motor Gasoline	8,932	145	0	65	563	9,705	313
Leaded	0	0	0	16	184	200	6
Unleaded	8,932	145	0	49	379	9,505	307
Finished Aviation Gasoline	2	0	0	0	3	5	(s)
Jet Fuel	1,704	54	297	0	518	2,573	83
Naphtha-Type	0	54	0	0	6	60	2
Kerosene-Type	1,704	0	297	0	512	2,513	81
Bonded Aircraft Fuel	704	0	0	0	494	1,198	39
Other	1,000	0	297	0	18	1,315	42
Kerosene	23	0	0	0	0	23	1
Distillate Fuel Oil	8,445	224	0	76	319	9,064	292
Bonded Ship Bunkers	0	0	0	3	0	3	(s)
Other	8,445	224	0	73	319	9,061	292
Residual Fuel Oil	15,499	58	1,284	0	950	17,791	574
Bonded Ship Bunkers	101	0	0	0	0	101	3
Other	15,398	58	1,284	0	950	17,690	571
Naphtha for Petrochemical Feedstock Use	154	67	874	0	35	1,130	36
Other Oils for Petrochemical Feedstock Use	0	0	4,001	0	0	4,001	129
Special Naphthas	9	51	104	0	11	175	6
Lubricants	237	23	37	0	0	297	10
Waxes	46	4	1	0	0	51	2
Petroleum Coke	0	0	0	0	19	19	1
Asphalt and Road Oil	1,241	49	58	0	1	1,349	44
Miscellaneous Products	57	13	0	0	0	70	2
Total	**78,004**	**41,462**	**134,272**	**2,948**	**8,622**	**265,308**	**8,558**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-August 1990

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	307,110	285,986	848,996	17,897	61,034	1,521,023	6,259
Natural Gas Liquids	9,257	17,748	18,106	2,025	1,082	48,218	198
Pentanes Plus	822	272	276	732	0	2,102	9
Liquefied Petroleum Gases	8,435	17,476	17,830	1,293	1,082	46,116	190
Ethane/Ethylene	0	0	886	0	0	886	4
Propane/Propylene	7,855	13,213	7,424	784	636	29,912	123
Normal Butane/Butylene	513	3,690	6,644	396	175	11,418	47
Isobutane	67	573	2,876	113	271	3,900	16
Other Liquids	41,315	97	68,747	5	1,330	111,494	459
Unfinished Oils[a]	26,827	0	66,485	5	834	94,151	387
Naphthas and Lighter	2,106	0	17,301	5	0	19,412	80
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	22,802	0	16,582	0	634	40,018	165
Residuum	1,919	0	32,602	0	200	34,721	143
Motor Gasoline Blending Components	14,488	97	2,262	0	496	17,343	71
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	305,869	4,734	61,272	846	13,607	386,328	1,590
Finished Motor Gasoline	80,272	1,192	5,172	341	4,030	91,007	375
Leaded	0	0	25	50	301	376	2
Unleaded	80,272	1,192	5,147	291	3,729	90,631	373
Finished Aviation Gasoline	11	0	0	0	27	38	(s)
Jet Fuel	19,948	420	5,656	0	1,846	27,870	115
Naphtha-Type	0	390	0	0	21	411	2
Kerosene-Type	19,948	30	5,656	0	1,825	27,459	113
Bonded Aircraft Fuel	6,555	30	4,556	0	1,499	12,640	52
Other	13,393	0	1,100	0	326	14,819	61
Kerosene	970	0	442	0	0	1,412	6
Distillate Fuel Oil	70,341	1,502	440	446	1,029	73,758	304
Bonded Ship Bunkers	119	0	0	11	0	130	1
Other	70,222	1,502	440	435	1,029	73,628	303
Residual Fuel Oil	122,607	543	7,004	59	5,958	136,171	560
Bonded Ship Bunkers	327	0	0	0	0	327	1
Other	122,280	543	7,004	59	5,958	135,844	559
Naphtha for Petrochemical Feedstock Use	2,114	381	15,898	0	297	18,690	77
Other Oils for Petrochemical Feedstock Use	0	0	24,241	0	0	24,241	100
Special Naphthas	120	308	1,752	0	61	2,241	9
Lubricants	1,949	190	93	0	70	2,302	9
Waxes	206	43	13	0	15	277	1
Petroleum Coke	0	0	273	0	261	534	2
Asphalt and Road Oil	6,931	105	286	0	13	7,335	30
Miscellaneous Products	400	50	2	0	0	452	2
Total	663,551	308,565	997,121	20,773	77,053	2,067,063	8,506

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] August 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**71,449**	**1,678**	**4,155**	**0**	**942**	**350**	**0**	**1,288**	**334**	**0**	**1,622**
Algeria	2,465	1,085	1,646	0	0	0	0	1,288	334	0	1,622
Iraq	29,935	0	0	0	0	0	0	0	0	0	0
Kuwait	6,423	171	0	0	0	0	0	0	0	0	0
Saudi Arabia	32,626	422	2,509	0	942	350	0	0	0	0	0
Other OPEC	**54,395**	**0**	**458**	**0**	**3,722**	**1,260**	**4,537**	**450**	**180**	**1,713**	**2,343**
Ecuador	2,149	0	0	0	0	0	0	0	180	180	360
Gabon	3,685	0	0	0	0	0	0	0	0	0	0
Indonesia	2,134	0	0	0	0	0	0	450	0	0	450
Nigeria	27,313	0	0	0	0	0	0	0	0	0	0
Venezuela	19,114	0	458	0	3,722	1,260	4,537	0	0	1,533	1,533
Non OPEC	**73,535**	**4,719**	**6,935**	**1,365**	**5,041**	**963**	**4,527**	**2,402**	**3,623**	**7,801**	**13,826**
Angola	4,168	0	0	0	0	0	0	0	0	0	0
Argentina	518	0	32	0	0	0	0	269	159	0	428
Australia	792	527	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	1,016	236	1,252
Belgium	0	0	331	571	0	0	0	0	176	0	176
Brazil	0	0	0	0	1,054	0	0	334	0	0	334
Canada	20,966	2,311	423	1	1,583	296	1,549	0	250	916	1,166
China, People's Republic of	2,381	0	0	0	0	0	0	0	0	0	0
Colombia	4,098	0	0	0	0	0	183	0	516	1,485	2,001
Congo	889	0	0	0	0	0	0	0	0	0	0
Egypt	1,250	0	0	0	0	0	0	0	0	0	0
France	0	20	0	0	0	0	0	0	163	319	482
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	239	0	0	0	0	0	0
India	0	0	328	0	0	0	0	0	0	0	0
Italy	0	0	667	0	0	0	0	678	0	0	678
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	3,961	0	0	0	0	0	0	0	0	0	0
Mexico	20,952	1,861	0	0	0	18	579	0	32	315	347
Netherlands	0	0	474	125	0	0	0	0	0	346	346
Netherlands Antilles	0	0	0	0	0	0	0	281	0	999	1,280
Norway	4,928	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	236	647	883
Portugal	0	0	0	0	229	0	0	0	238	0	238
Puerto Rico	0	0	289	50	0	0	0	0	88	0	88
Romania	0	0	0	522	0	0	0	0	0	0	0
Singapore	0	0	200	0	0	0	0	660	0	0	660
Spain	0	0	710	0	712	0	0	0	86	0	86
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	0	0	209	0	0	0	0	0	0	352	352
Trinidad and Tobago	2,826	0	0	0	0	0	0	0	0	519	519
United Kingdom	5,140	0	0	0	0	0	0	0	114	5	119
U.S.S.R.	0	0	1,878	0	0	0	0	0	0	373	373
Virgin Islands	0	0	1,394	81	1,224	649	2,060	180	549	1,001	1,730
Yugoslavia	0	0	0	0	0	0	156	0	0	0	0
Zaire	666	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	288	288
Total	**199,379**	**6,397**	**11,548**	**1,365**	**9,705**	**2,573**	**9,064**	**4,140**	**4,137**	**9,514**	**17,791**

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] August 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**4,001**	**0**	**0**	**0**	**12,748**	**84,197**	**2,716**
Algeria	0	0	0	4,001	0	0	0	8,354	10,819	349
Iraq	0	0	0	0	0	0	0	0	29,935	966
Kuwait	0	0	0	0	0	0	0	171	6,594	213
Saudi Arabia	0	0	0	0	0	0	0	4,223	36,849	1,189
Other OPEC	**0**	**0**	**0**	**0**	**0**	**792**	**0**	**13,112**	**67,507**	**2,178**
Ecuador	0	0	0	0	0	0	0	360	2,509	81
Gabon	0	0	0	0	0	0	0	0	3,685	119
Indonesia	0	0	0	0	0	0	0	450	2,584	83
Nigeria	0	0	0	0	0	0	0	0	27,313	881
Venezuela	0	0	0	0	0	792	0	12,302	31,416	1,013
Non OPEC	**23**	**175**	**1,130**	**0**	**297**	**557**	**511**	**40,069**	**113,604**	**3,665**
Angola	0	0	0	0	0	0	0	0	4,168	134
Argentina	0	32	0	0	0	0	0	492	1,010	33
Australia	0	0	0	0	0	0	0	527	1,319	43
Bahama Islands	0	0	0	0	0	0	0	1,252	1,252	40
Belgium	0	0	0	0	0	0	0	1,078	1,078	35
Brazil	0	0	0	0	0	0	1	1,389	1,389	45
Canada	23	143	63	0	59	376	220	8,213	29,179	941
China, People's Republic of	0	0	0	0	37	0	16	53	2,434	79
Colombia	0	0	0	0	0	0	0	2,184	6,282	203
Congo	0	0	0	0	0	0	0	0	889	29
Egypt	0	0	0	0	0	0	3	3	1,253	40
France	0	0	14	0	0	0	0	516	516	17
Germany, FR (W)	0	0	0	0	0	0	7	7	7	(s)
Greece	0	0	0	0	0	0	0	239	239	8
India	0	0	505	0	0	0	0	833	833	27
Italy	0	0	0	0	0	0	3	1,348	1,348	43
Japan	0	0	0	0	0	0	2	2	2	(s)
Korea, Republic of	0	0	35	0	0	0	0	50	50	2
Malaysia	0	0	0	0	0	0	0	0	3,961	128
Mexico	0	0	0	0	0	11	202	3,018	23,970	773
Netherlands	0	0	267	0	0	0	0	1,212	1,212	39
Netherlands Antilles	0	0	0	0	0	0	0	1,280	1,280	41
Norway	0	0	0	0	0	0	0	0	4,928	159
Peru	0	0	0	0	0	0	0	883	883	28
Portugal	0	0	0	0	0	0	0	467	467	15
Puerto Rico	0	0	208	0	201	0	55	891	891	29
Romania	0	0	0	0	0	0	0	522	522	17
Singapore	0	0	0	0	0	0	0	860	860	28
Spain	0	0	7	0	0	170	0	1,685	1,685	54
Sweden	0	0	13	0	0	0	0	13	13	(s)
Syria	0	0	0	0	0	0	0	561	561	18
Trinidad and Tobago	0	0	0	0	0	0	0	519	3,345	108
United Kingdom	0	0	18	0	0	0	0	137	5,277	170
U.S.S.R.	0	0	0	0	0	0	0	2,251	2,251	73
Virgin Islands	0	0	0	0	0	0	0	7,138	7,138	230
Yugoslavia	0	0	0	0	0	0	0	156	156	5
Zaire	0	0	0	0	0	0	0	0	666	21
Other	0	0	0	0	0	0	2	290	290	9
Total	**23**	**175**	**1,130**	**4,001**	**297**	**1,349**	**511**	**65,929**	**265,308**	**8,558**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	8,269	0	645	0	732	193	0	922	0	0	922
Algeria	0	0	645	0	0	0	0	922	0	0	922
Iraq	984	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,285	0	0	0	732	193	0	0	0	0	0
Other OPEC	18,807	0	0	0	3,722	923	4,537	0	180	1,713	1,893
Ecuador	1,060	0	0	0	0	0	0	0	180	180	360
Gabon	2,790	0	0	0	0	0	0	0	0	0	0
Nigeria	11,268	0	0	0	0	0	0	0	0	0	0
Venezuela	3,689	0	0	0	3,722	923	4,537	0	0	1,533	1,533
Non OPEC	9,284	218	2,881	1,349	4,478	588	3,908	1,852	3,373	7,459	12,684
Angola	503	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0	159	0	159
Bahama Islands	0	0	0	0	0	0	0	0	1,016	236	1,252
Belgium	0	0	211	571	0	0	0	0	176	0	176
Brazil	0	0	0	0	818	0	0	334	0	0	334
Canada	2,505	218	0	0	1,256	236	1,129	0	0	889	889
China, People's Republic of	0	0	0	0	0	0	0	0	0	0	0
Colombia	549	0	0	0	0	0	183	0	516	1,485	2,001
Egypt	679	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	163	319	482
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	239	0	0	0	0	0	0
Italy	0	0	299	0	0	0	0	678	0	0	678
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	843	0	0	0	0	0	0	0	0	0	0
Mexico	2,231	0	0	0	0	0	380	0	32	0	32
Netherlands	0	0	474	125	0	0	0	0	0	346	346
Netherlands Antilles	0	0	0	0	0	0	0	0	0	999	999
Norway	1,621	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	236	647	883
Portugal	0	0	0	0	229	0	0	0	238	0	238
Puerto Rico	0	0	289	50	0	0	0	0	88	0	88
Romania	0	0	0	522	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	660	0	0	660
Spain	0	0	214	0	712	0	0	0	86	0	86
Syria	0	0	0	0	0	0	0	0	0	352	352
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	519	519
United Kingdom	0	0	0	0	0	0	0	0	114	5	119
U.S.S.R.	0	0	0	0	0	0	0	0	0	373	373
Virgin Islands	0	0	1,394	81	1,224	352	2,060	180	549	1,001	1,730
Yugoslavia	0	0	0	0	0	0	156	0	0	0	0
Zaire	353	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	288	288
Total	36,360	218	3,526	1,349	8,932	1,704	8,445	2,774	3,553	9,172	15,499

See footnotes at end of table.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,492**	**10,761**	**347**
Algeria	0	0	0	0	0	0	0	1,567	1,567	51
Iraq	0	0	0	0	0	0	0	0	984	32
Saudi Arabia	0	0	0	0	0	0	0	925	8,210	265
Other OPEC	**0**	**0**	**0**	**0**	**0**	**745**	**0**	**11,820**	**30,627**	**988**
Ecuador	0	0	0	0	0	0	0	360	1,420	46
Gabon	0	0	0	0	0	0	0	0	2,790	90
Nigeria	0	0	0	0	0	0	0	0	11,268	363
Venezuela	0	0	0	0	0	745	0	11,460	15,149	489
Non OPEC	**23**	**9**	**154**	**0**	**237**	**496**	**307**	**27,332**	**36,616**	**1,181**
Angola	0	0	0	0	0	0	0	0	503	16
Argentina	0	0	0	0	0	0	0	159	159	5
Bahama Islands	0	0	0	0	0	0	0	1,252	1,252	40
Belgium	0	0	0	0	0	0	0	958	958	31
Brazil	0	0	0	0	0	0	1	1,153	1,153	37
Canada	23	9	14	0	36	326	18	4,154	6,659	215
China, People's Republic of	0	0	0	0	0	0	16	16	16	1
Colombia	0	0	0	0	0	0	0	2,184	2,733	88
Egypt	0	0	0	0	0	0	3	3	682	22
France	0	0	0	0	0	0	0	482	482	16
Germany, FR (W)	0	0	0	0	0	0	5	5	5	(s)
Greece	0	0	0	0	0	0	0	239	239	8
Italy	0	0	0	0	0	0	3	980	980	32
Japan	0	0	0	0	0	0	2	2	2	(s)
Malaysia	0	0	0	0	0	0	0	0	843	27
Mexico	0	0	0	0	0	0	202	614	2,845	92
Netherlands	0	0	0	0	0	0	0	945	945	30
Netherlands Antilles	0	0	0	0	0	0	0	999	999	32
Norway	0	0	0	0	0	0	0	0	1,621	52
Peru	0	0	0	0	0	0	0	883	883	28
Portugal	0	0	0	0	0	0	0	467	467	15
Puerto Rico	0	0	140	0	201	0	55	823	823	27
Romania	0	0	0	0	0	0	0	522	522	17
Singapore	0	0	0	0	0	0	0	660	660	21
Spain	0	0	0	0	0	170	0	1,182	1,182	38
Syria	0	0	0	0	0	0	0	352	352	11
Trinidad and Tobago	0	0	0	0	0	0	0	519	519	17
United Kingdom	0	0	0	0	0	0	0	119	119	4
U.S.S.R.	0	0	0	0	0	0	0	373	373	12
Virgin Islands	0	0	0	0	0	0	0	6,841	6,841	221
Yugoslavia	0	0	0	0	0	0	0	156	156	5
Zaire	0	0	0	0	0	0	0	0	353	11
Other	0	0	0	0	0	0	2	290	290	9
Total	**23**	**9**	**154**	**0**	**237**	**1,241**	**307**	**41,644**	**78,004**	**2,516**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**10,895**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	329	0	0	0	0	0	0	0	0	0	0
Iraq	6,468	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	4,098	0	0	0	0	0	0	0	0	0	0
Other OPEC	**5,896**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	358	0	0	0	0	0	0	0	0	0	0
Indonesia	210	0	0	0	0	0	0	0	0	0	0
Nigeria	1,838	0	0	0	0	0	0	0	0	0	0
Venezuela	3,490	0	0	0	0	0	0	0	0	0	0
Non OPEC	**22,135**	**1,808**	**0**	**1**	**145**	**54**	**224**	**0**	**31**	**27**	**58**
Canada	15,624	1,808	0	1	145	54	224	0	31	27	58
Colombia	524	0	0	0	0	0	0	0	0	0	0
Egypt	571	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,908	0	0	0	0	0	0	0	0	0	0
Norway	513	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	476	0	0	0	0	0	0	0	0	0	0
United Kingdom	1,519	0	0	0	0	0	0	0	0	0	0
Total	**38,926**	**1,808**	**0**	**1**	**145**	**54**	**224**	**0**	**31**	**27**	**58**

See footnotes at end of table.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,895**	**351**
Algeria	0	0	0	0	0	0	0	0	329	11
Iraq	0	0	0	0	0	0	0	0	6,468	209
Saudi Arabia	0	0	0	0	0	0	0	0	4,098	132
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,896**	**190**
Ecuador	0	0	0	0	0	0	0	0	358	12
Indonesia	0	0	0	0	0	0	0	0	210	7
Nigeria	0	0	0	0	0	0	0	0	1,838	59
Venezuela	0	0	0	0	0	0	0	0	3,490	113
Non OPEC	**0**	**51**	**67**	**0**	**23**	**49**	**56**	**2,536**	**24,671**	**796**
Canada	0	51	49	0	23	49	55	2,517	18,141	585
Colombia	0	0	0	0	0	0	0	0	524	17
Egypt	0	0	0	0	0	0	0	0	571	18
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Mexico	0	0	0	0	0	0	0	0	2,908	94
Norway	0	0	0	0	0	0	0	0	513	17
Trinidad and Tobago	0	0	0	0	0	0	0	0	476	15
United Kingdom	0	0	18	0	0	0	0	18	1,537	50
Total	**0**	**51**	**67**	**0**	**23**	**49**	**56**	**2,536**	**41,462**	**1,337**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil: Less than 0.31% Sulfur	Residual Fuel Oil: 0.31 to 1.00% Sulfur	Residual Fuel Oil: Greater than 1.00% Sulfur	Residual Fuel Oil: Total
Arab OPEC	**51,480**	**1,678**	**3,510**	**0**	**0**	**0**	**0**	**366**	**334**	**0**	**700**
Algeria	2,136	1,085	1,001	0	0	0	0	366	334	0	700
Iraq	21,678	0	0	0	0	0	0	0	0	0	0
Kuwait	6,423	171	0	0	0	0	0	0	0	0	0
Saudi Arabia	21,243	422	2,509	0	0	0	0	0	0	0	0
Other OPEC	**28,151**	**0**	**458**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	731	0	0	0	0	0	0	0	0	0	0
Gabon	895	0	0	0	0	0	0	0	0	0	0
Indonesia	383	0	0	0	0	0	0	0	0	0	0
Nigeria	14,207	0	0	0	0	0	0	0	0	0	0
Venezuela	11,935	0	458	0	0	0	0	0	0	0	0
Non OPEC	**36,077**	**2,408**	**3,854**	**0**	**0**	**297**	**0**	**269**	**0**	**315**	**584**
Angola	3,665	0	0	0	0	0	0	0	0	0	0
Argentina	518	0	32	0	0	0	0	269	0	0	269
Australia	0	527	0	0	0	0	0	0	0	0	0
Belgium	0	0	120	0	0	0	0	0	0	0	0
Canada	0	0	423	0	0	0	0	0	0	0	0
China, People's Republic of	1,615	0	0	0	0	0	0	0	0	0	0
Colombia	3,025	0	0	0	0	0	0	0	0	0	0
Congo	889	0	0	0	0	0	0	0	0	0	0
France	0	20	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
India	0	0	328	0	0	0	0	0	0	0	0
Italy	0	0	368	0	0	0	0	0	0	0	0
Malaysia	2,474	0	0	0	0	0	0	0	0	0	0
Mexico	14,813	1,861	0	0	0	0	0	0	0	315	315
Netherlands	0	0	0	0	0	0	0	0	0	0	0
Norway	2,794	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	496	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	0	0	209	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,350	0	0	0	0	0	0	0	0	0	0
United Kingdom	3,621	0	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,878	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	297	0	0	0	0	0
Zaire	313	0	0	0	0	0	0	0	0	0	0
Total	**115,708**	**4,086**	**7,822**	**0**	**0**	**297**	**0**	**635**	**334**	**315**	**1,284**

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**4,001**	**0**	**0**	**0**	**9,889**	**61,369**	**1,980**
Algeria	0	0	0	4,001	0	0	0	6,787	8,923	288
Iraq	0	0	0	0	0	0	0	0	21,678	699
Kuwait	0	0	0	0	0	0	0	171	6,594	213
Saudi Arabia	0	0	0	0	0	0	0	2,931	24,174	780
Other OPEC	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**505**	**28,656**	**924**
Ecuador	0	0	0	0	0	0	0	0	731	24
Gabon	0	0	0	0	0	0	0	0	895	29
Indonesia	0	0	0	0	0	0	0	0	383	12
Nigeria	0	0	0	0	0	0	0	0	14,207	458
Venezuela	0	0	0	0	0	47	0	505	12,440	401
Non OPEC	**0**	**104**	**874**	**0**	**37**	**11**	**1**	**8,170**	**44,247**	**1,427**
Angola	0	0	0	0	0	0	0	0	3,665	118
Argentina	0	32	0	0	0	0	0	333	851	27
Australia	0	0	0	0	0	0	0	527	527	17
Belgium	0	0	0	0	0	0	0	120	120	4
Canada	0	72	0	0	0	0	0	495	495	16
China, People's Republic of	0	0	0	0	37	0	0	37	1,652	53
Colombia	0	0	0	0	0	0	0	0	3,025	98
Congo	0	0	0	0	0	0	0	0	889	29
France	0	0	14	0	0	0	0	34	34	1
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
India	0	0	505	0	0	0	0	833	833	27
Italy	0	0	0	0	0	0	0	368	368	12
Malaysia	0	0	0	0	0	0	0	0	2,474	80
Mexico	0	0	0	0	0	11	0	2,187	17,000	548
Netherlands	0	0	267	0	0	0	0	267	267	9
Norway	0	0	0	0	0	0	0	0	2,794	90
Puerto Rico	0	0	68	0	0	0	0	68	68	2
Spain	0	0	7	0	0	0	0	503	503	16
Sweden	0	0	13	0	0	0	0	13	13	(s)
Syria	0	0	0	0	0	0	0	209	209	7
Trinidad and Tobago	0	0	0	0	0	0	0	0	2,350	76
United Kingdom	0	0	0	0	0	0	0	0	3,621	117
U.S.S.R.	0	0	0	0	0	0	0	1,878	1,878	61
Virgin Islands	0	0	0	0	0	0	0	297	297	10
Zaire	0	0	0	0	0	0	0	0	313	10
Total	**0**	**104**	**874**	**4,001**	**37**	**58**	**1**	**18,564**	**134,272**	**4,331**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
						PAD District IV					
Non OPEC	**2,480**	**202**	**0**	**0**	**65**	**0**	**76**	**0**	**0**	**0**	**0**
Canada	2,480	202	0	0	65	0	76	0	0	0	0
Total	**2,480**	**202**	**0**	**0**	**65**	**0**	**76**	**0**	**0**	**0**	**0**
						PAD District V					
Arab OPEC	**805**	**0**	**0**	**0**	**210**	**157**	**0**	**0**	**0**	**0**	**0**
Iraq	805	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	210	157	0	0	0	0	0
Other OPEC	**1,541**	**0**	**0**	**0**	**0**	**337**	**0**	**450**	**0**	**0**	**450**
Indonesia	1,541	0	0	0	0	0	0	450	0	0	450
Venezuela	0	0	0	0	0	337	0	0	0	0	0
Non OPEC	**3,559**	**83**	**200**	**15**	**353**	**24**	**319**	**281**	**219**	**0**	**500**
Australia	792	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	236	0	0	0	0	0	0
Canada	357	83	0	0	117	6	120	0	219	0	219
China, People's Republic of	766	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	644	0	0	0	0	0	0	0	0	0	0
Mexico	1,000	0	0	0	0	18	199	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	281	0	0	281
Singapore	0	0	200	0	0	0	0	0	0	0	0
Total	**5,905**	**83**	**200**	**15**	**563**	**518**	**319**	**731**	**219**	**0**	**950**

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**125**	**468**	**2,948**	**95**
Canada	0	0	0	0	0	0	125	468	2,948	95
Total	**0**	**0**	**0**	**0**	**0**	**0**	**125**	**468**	**2,948**	**95**
					PAD District V					
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**367**	**1,172**	**38**
Iraq	0	0	0	0	0	0	0	0	805	26
Saudi Arabia	0	0	0	0	0	0	0	367	367	12
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**787**	**2,328**	**75**
Indonesia	0	0	0	0	0	0	0	450	1,991	64
Venezuela	0	0	0	0	0	0	0	337	337	11
Non OPEC	**0**	**11**	**35**	**0**	**0**	**1**	**22**	**1,563**	**5,122**	**165**
Australia	0	0	0	0	0	0	0	0	792	26
Brazil	0	0	0	0	0	0	0	236	236	8
Canada	0	11	0	0	0	1	22	579	936	30
China, People's Republic of	0	0	0	0	0	0	0	0	766	25
Korea, Republic of	0	0	35	0	0	0	0	50	50	2
Malaysia	0	0	0	0	0	0	0	0	644	21
Mexico	0	0	0	0	0	0	0	217	1,217	39
Netherlands Antilles	0	0	0	0	0	0	0	281	281	9
Singapore	0	0	0	0	0	0	0	200	200	6
Total	**0**	**11**	**35**	**0**	**0**	**1**	**22**	**2,717**	**8,622**	**278**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-August 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**493,298**	**8,252**	**31,700**	**0**	**8,232**	**3,759**	**6,000**	**7,316**	**885**	**2,478**	**10,679**
Algeria	16,224	6,949	9,355	0	0	0	4,560	7,316	650	354	8,320
Iraq	176,332	0	1,432	0	0	0	188	0	0	0	0
Kuwait	27,959	171	614	0	0	35	260	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	268,190	1,132	18,549	0	8,232	3,724	992	0	235	1,449	1,684
United Arab Emirates	3,300	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	**427,620**	**1,189**	**7,318**	**1,754**	**19,294**	**8,873**	**29,486**	**5,390**	**1,196**	**17,158**	**23,744**
Ecuador	10,689	0	0	0	0	0	131	0	180	2,397	2,577
Gabon	16,991	0	0	0	0	0	0	0	0	105	105
Indonesia	27,444	0	883	0	0	0	0	2,892	0	0	2,892
Nigeria	215,361	0	0	0	184	0	0	1,828	1,016	44	2,888
Venezuela	157,135	1,189	6,435	1,754	19,110	8,873	29,355	670	0	14,612	15,282
Non OPEC	**600,105**	**36,675**	**55,133**	**15,589**	**63,481**	**15,238**	**38,272**	**17,183**	**31,081**	**53,484**	**101,748**
Angola	64,041	0	0	0	0	0	0	0	0	0	0
Argentina	2,316	0	1,095	487	1,057	0	1,263	465	2,206	0	2,671
Australia	12,080	1,276	0	0	0	0	0	81	145	0	226
Bahama Islands	0	0	0	0	0	0	208	0	3,877	6,959	10,836
Belgium	0	0	2,425	3,509	1,758	0	0	215	400	0	615
Benin	1,192	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	5,589	0	0	4,443	3,678	88	8,209
Brunei	2,248	0	0	0	0	0	0	0	0	0	0
Cameroon	3,338	0	0	0	0	0	0	0	941	329	1,270
Canada	154,209	25,025	3,554	192	12,665	2,635	12,906	181	1,357	5,469	7,007
China, People's Republic of	19,428	0	0	481	161	0	0	0	0	0	0
Colombia	34,132	0	481	0	0	0	183	327	1,651	9,469	11,447
Congo	6,744	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	6,191	0	1,968	0	0	0	0	0	172	0	172
France	0	40	200	276	6,118	296	777	0	1,731	531	2,262
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	846	551	847	587	0	0	587
Guatemala	633	0	0	0	0	0	0	0	0	0	0
India	210	0	4,316	0	0	0	0	0	0	0	0
Italy	669	27	5,294	567	8,232	258	185	678	1,128	522	2,328
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	6	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	7,545	0	0	0	0	0	0	117	0	0	117
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	163,441	9,731	0	0	5	2,624	2,535	0	32	1,302	1,334
Netherlands	0	4	4,603	1,055	3,959	450	721	0	898	686	1,584
Netherlands Antilles	0	0	509	0	244	0	0	281	0	4,371	4,652
Norway	28,199	0	334	0	744	0	189	0	0	0	0
Oman	11,912	0	256	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	732	3,301	4,205
Portugal	0	16	0	42	1,139	0	0	0	954	0	954
Puerto Rico	0	0	1,669	2,387	0	0	0	0	88	0	88
Romania	0	0	0	3,447	866	187	625	0	0	0	0
Singapore	0	0	509	0	0	3	0	2,115	363	0	2,478
Spain	0	0	3,507	138	6,116	838	0	71	1,208	483	1,762
Sweden	0	0	381	0	0	0	0	0	460	0	460
Syria	218	0	209	0	0	0	0	0	0	974	974
Thailand	3,394	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	19,261	0	0	0	250	220	160	0	333	5,197	5,530
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	499	0	639	419	0	0	0	0	0	80	80
United Kingdom	46,297	550	1,833	468	2,768	56	954	0	1,704	194	1,898
U.S.S.R.	0	0	3,754	0	124	0	1,856	553	85	2,273	2,911
Virgin Islands	0	0	15,899	1,854	10,816	6,969	13,983	5,898	4,554	10,253	20,705
Yemen (Sana)	6,993	0	671	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	368	0	0	0	0
Zaire	4,915	0	0	0	0	0	0	0	0	0	0
Other	0	0	913	0	24	111	0	410	1,454	557	2,421
Total	**1,521,023**	**46,116**	**94,151**	**17,343**	**91,007**	**27,870**	**73,758**	**29,889**	**33,162**	**73,120**	**136,171**

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	138	29	5,997	23,979	0	0	0	98,765	592,063	2,436
Algeria	0	29	5,738	23,979	0	0	0	58,930	75,154	309
Iraq	0	0	0	0	0	0	0	1,620	177,952	732
Kuwait	0	0	0	0	0	0	0	1,080	29,039	120
Qatar	0	0	0	0	0	0	0	0	1,293	5
Saudi Arabia	138	0	259	0	0	0	0	34,710	302,900	1,247
United Arab Emirates	0	0	0	0	0	0	0	2,425	5,725	24
Other OPEC	221	129	1,691	0	0	5,277	28	99,004	526,624	2,167
Ecuador	0	0	0	0	0	0	0	2,708	13,397	55
Gabon	0	0	0	0	0	0	0	105	17,096	70
Indonesia	0	0	716	0	0	0	28	4,519	31,963	132
Nigeria	0	0	0	0	0	0	0	3,072	218,433	899
Venezuela	221	129	975	0	0	5,277	0	88,600	245,735	1,011
Non OPEC	1,053	2,083	11,002	262	2,302	2,058	3,375	348,271	948,376	3,903
Angola	0	0	0	0	0	0	0	0	64,041	264
Argentina	0	159	15	0	0	0	267	7,014	9,330	38
Australia	0	0	0	0	0	0	0	1,502	13,582	56
Bahama Islands	0	0	0	0	0	0	0	11,044	11,044	45
Belgium	0	0	0	0	0	0	2	8,309	8,309	34
Benin	0	0	0	0	0	0	0	0	1,192	5
Brazil	0	23	0	0	18	0	8	13,851	13,851	57
Brunei	0	0	0	0	0	0	0	0	2,248	9
Cameroon	0	0	0	0	0	0	0	1,270	4,608	19
Canada	187	1,035	746	0	471	1,052	1,471	68,946	223,155	918
China, People's Republic of	0	0	0	0	132	0	31	805	20,233	83
Colombia	0	0	0	0	0	0	5	12,116	46,248	190
Congo	0	0	0	0	0	0	0	982	7,726	32
Denmark	0	0	0	0	0	0	0	407	407	2
Egypt	0	0	705	0	0	0	7	2,852	9,043	37
France	0	0	354	0	0	0	0	10,323	10,323	42
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	63	63	63	(s)
Greece	0	0	235	0	0	0	0	3,318	3,318	14
Guatemala	0	0	0	0	0	0	0	0	633	3
India	0	0	3,500	0	0	0	0	7,816	8,026	33
Italy	0	8	21	262	0	0	14	17,196	17,865	74
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	75	0	31	0	61	177	177	1
Korea, Republic of	0	0	247	0	0	0	0	262	262	1
Malaysia	0	0	0	0	0	0	0	117	7,662	32
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	78	1,027	17,334	180,775	744
Netherlands	0	803	1,666	0	30	0	10	14,885	14,885	61
Netherlands Antilles	0	0	0	0	0	252	0	5,657	5,657	23
Norway	0	0	0	0	0	0	0	1,267	29,466	121
Oman	0	0	0	0	0	0	0	256	12,168	50
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,205	4,205	17
Portugal	0	28	0	0	22	0	0	2,201	2,201	9
Puerto Rico	0	0	1,785	0	1,586	0	394	7,909	7,909	33
Romania	0	0	0	0	0	0	0	5,125	5,125	21
Singapore	0	0	0	0	0	0	0	2,990	2,990	12
Spain	0	0	107	0	12	676	0	13,156	13,156	54
Sweden	0	0	259	0	0	0	0	1,100	1,100	5
Syria	0	0	0	0	0	0	0	1,183	1,401	6
Thailand	0	0	0	0	0	0	0	0	3,394	14
Trinidad and Tobago	0	22	0	0	0	0	0	6,182	25,443	105
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	1,138	1,637	7
United Kingdom	0	1	746	0	0	0	0	9,274	55,571	229
U.S.S.R.	160	0	321	0	0	0	0	9,126	9,126	38
Virgin Islands	706	0	220	0	0	0	0	71,152	71,152	293
Yemen (Sana)	0	0	0	0	0	0	0	671	7,664	32
Yugoslavia	0	0	0	0	0	0	0	368	368	2
Zaire	0	0	0	0	0	0	0	0	4,915	20
Other	0	0	0	0	0	0	15	3,484	3,484	14
Total	1,412	2,241	18,690	24,241	2,302	7,335	3,403	546,040	2,067,063	8,506

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**56,524**	**4,180**	**2,262**	**0**	**6,607**	**2,163**	**5,797**	**6,426**	**296**	**973**	**7,695**
Algeria	419	3,470	2,262	0	0	0	4,560	6,426	296	112	6,834
Iraq	15,670	0	0	0	0	0	188	0	0	0	0
Kuwait	1,519	0	0	0	0	0	260	0	0	0	0
Saudi Arabia	38,916	710	0	0	6,607	2,163	789	0	0	861	861
Other OPEC	**153,037**	**0**	**238**	**0**	**17,736**	**6,721**	**29,279**	**2,140**	**1,196**	**16,831**	**20,167**
Ecuador	5,618	0	0	0	0	0	131	0	180	2,397	2,577
Gabon	9,804	0	0	0	0	0	0	0	0	105	105
Nigeria	107,532	0	0	0	184	0	0	1,828	1,016	44	2,888
Venezuela	30,083	0	238	0	17,552	6,721	29,148	312	0	14,285	14,597
Non OPEC	**97,549**	**4,255**	**24,327**	**14,488**	**55,929**	**11,064**	**35,265**	**14,429**	**28,558**	**51,758**	**94,745**
Angola	24,326	0	0	0	0	0	0	0	0	0	0
Argentina	387	0	723	455	838	0	1,263	196	2,206	0	2,402
Australia	811	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	208	0	3,877	6,678	10,555
Belgium	0	0	1,256	3,509	1,758	0	0	215	400	0	615
Benin	327	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	4,469	0	0	4,443	3,678	88	8,209
Brunei	568	0	0	0	0	0	0	0	0	0	0
Cameroon	1,678	0	0	0	0	0	0	0	941	329	1,270
Canada	15,276	4,069	601	95	10,119	2,126	10,128	0	681	5,180	5,861
China, People's Republic of	3,653	0	0	0	0	0	0	0	0	0	0
Colombia	2,947	0	0	0	0	0	183	327	1,408	9,469	11,204
Congo	882	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	5,620	0	724	0	0	0	0	0	172	0	172
France	0	0	200	276	5,618	296	777	0	1,731	531	2,262
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	846	379	847	587	0	0	587
India	0	0	498	0	0	0	0	0	0	0	0
Italy	669	0	2,412	449	7,783	258	185	678	592	522	1,792
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	843	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	18,252	0	0	0	0	451	2,306	0	32	596	628
Netherlands	0	0	1,730	939	3,423	450	721	0	898	686	1,584
Netherlands Antilles	0	0	0	0	244	0	0	0	0	4,371	4,371
Norway	11,826	0	0	0	744	0	189	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	732	3,301	4,205
Portugal	0	0	0	16	897	0	0	0	954	0	954
Puerto Rico	0	0	1,669	2,387	0	0	0	0	88	0	88
Romania	0	0	0	3,447	866	187	625	0	0	0	0
Singapore	0	0	0	0	0	0	0	660	0	0	660
Spain	0	0	1,394	138	5,838	838	0	71	989	302	1,362
Sweden	0	0	0	0	0	0	0	0	460	0	460
Syria	0	0	0	0	0	0	0	0	0	974	974
Trinidad and Tobago	2,716	0	0	0	250	0	160	0	333	5,197	5,530
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	0	0	201	236	0	0	0	0	0	80	80
United Kingdom	2,453	186	528	468	2,768	56	954	0	1,704	194	1,898
U.S.S.R.	0	0	0	0	124	0	1,856	183	85	2,273	2,541
Virgin Islands	0	0	12,103	1,821	9,344	5,872	13,983	5,898	4,307	10,253	20,458
Yemen (Sana)	998	0	0	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	368	0	0	0	0
Zaire	3,317	0	0	0	0	0	0	0	0	0	0
Other	0	0	178	0	0	111	0	410	1,360	288	2,058
Total	**307,110**	**8,435**	**26,827**	**14,488**	**80,272**	**19,948**	**70,341**	**22,995**	**30,050**	**69,562**	**122,607**

See footnotes at end of table.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**138**	**0**	**0**	**0**	**0**	**0**	**0**	**28,842**	**85,366**	**351**
Algeria	0	0	0	0	0	0	0	17,126	17,545	72
Iraq	0	0	0	0	0	0	0	188	15,858	65
Kuwait	0	0	0	0	0	0	0	260	1,779	7
Saudi Arabia	138	0	0	0	0	0	0	11,268	50,184	207
Other OPEC	**221**	**0**	**0**	**0**	**0**	**5,103**	**0**	**79,465**	**232,502**	**957**
Ecuador	0	0	0	0	0	0	0	2,708	8,326	34
Gabon	0	0	0	0	0	0	0	105	9,909	41
Nigeria	0	0	0	0	0	0	0	3,072	110,604	455
Venezuela	221	0	0	0	0	5,103	0	73,580	103,663	427
Non OPEC	**611**	**120**	**2,114**	**0**	**1,949**	**1,828**	**1,439**	**248,134**	**345,683**	**1,423**
Angola	0	0	0	0	0	0	0	0	24,326	100
Argentina	0	0	0	0	0	0	0	5,681	6,068	25
Australia	0	0	0	0	0	0	0	0	811	3
Bahama Islands	0	0	0	0	0	0	0	10,763	10,763	44
Belgium	0	0	0	0	0	0	0	7,138	7,138	29
Benin	0	0	0	0	0	0	0	0	327	1
Brazil	0	0	0	0	18	0	8	12,704	12,704	52
Brunei	0	0	0	0	0	0	0	0	568	2
Cameroon	0	0	0	0	0	0	0	1,270	2,948	12
Canada	187	80	143	0	281	934	106	34,730	50,006	206
China, People's Republic of	0	0	0	0	0	0	31	31	3,684	15
Colombia	0	0	0	0	0	0	0	11,387	14,334	59
Congo	0	0	0	0	0	0	0	982	1,864	8
Denmark	0	0	0	0	0	0	0	407	407	2
Egypt	0	0	227	0	0	0	4	1,127	6,747	28
France	0	0	9	0	0	0	0	9,438	9,438	39
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	42	42	42	(s)
Greece	0	0	0	0	0	0	0	2,911	2,911	12
India	0	0	0	0	0	0	0	498	498	2
Italy	0	8	0	0	0	0	14	12,901	13,570	56
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	14	0	0	0	8	26	26	(s)
Malaysia	0	0	0	0	0	0	0	0	843	3
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	0	822	4,207	22,459	92
Netherlands	0	0	0	0	30	0	0	8,877	8,877	37
Netherlands Antilles	0	0	0	0	0	218	0	4,833	4,833	20
Norway	0	0	0	0	0	0	0	933	12,759	53
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,205	4,205	17
Portugal	0	28	0	0	22	0	0	1,917	1,917	8
Puerto Rico	0	0	1,541	0	1,586	0	394	7,665	7,665	32
Romania	0	0	0	0	0	0	0	5,125	5,125	21
Singapore	0	0	0	0	0	0	0	660	660	3
Spain	0	0	0	0	12	676	0	10,258	10,258	42
Sweden	0	0	0	0	0	0	0	460	460	2
Syria	0	0	0	0	0	0	0	974	974	4
Trinidad and Tobago	0	0	0	0	0	0	0	5,940	8,656	36
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	517	517	2
United Kingdom	0	0	0	0	0	0	0	6,858	9,311	38
U.S.S.R.	160	0	0	0	0	0	0	4,681	4,681	19
Virgin Islands	264	0	180	0	0	0	0	64,025	64,025	263
Yemen (Sana)	0	0	0	0	0	0	0	0	998	4
Yugoslavia	0	0	0	0	0	0	0	368	368	2
Zaire	0	0	0	0	0	0	0	0	3,317	14
Other	0	0	0	0	0	0	10	2,357	2,357	10
Total	**970**	**120**	**2,114**	**0**	**1,949**	**6,931**	**1,439**	**356,441**	**663,551**	**2,731**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**59,711**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**
Algeria	3,184	0	0	0	0	0	0	0	0	0	0
Iraq	21,873	0	0	0	0	0	0	0	0	0	0
Kuwait	946	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	33,708	0	0	0	0	20	0	0	0	0	0
Other OPEC	**69,879**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	1,816	0	0	0	0	0	0	0	0	0	0
Indonesia	1,680	0	0	0	0	0	0	0	0	0	0
Nigeria	35,432	0	0	0	0	0	0	0	0	0	0
Venezuela	30,951	0	0	0	0	0	0	0	0	0	0
Non OPEC	**156,396**	**17,476**	**0**	**97**	**1,192**	**400**	**1,502**	**165**	**132**	**246**	**543**
Canada	116,402	17,476	0	97	1,192	390	1,502	165	132	246	543
Colombia	1,526	0	0	0	0	0	0	0	0	0	0
Egypt	571	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	20,459	0	0	0	0	10	0	0	0	0	0
Norway	1,462	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	5,097	0	0	0	0	0	0	0	0	0	0
Turkey	499	0	0	0	0	0	0	0	0	0	0
United Kingdom	6,231	0	0	0	0	0	0	0	0	0	0
Yemen (Sana)	4,005	0	0	0	0	0	0	0	0	0	0
Zaire	144	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**285,986**	**17,476**	**0**	**97**	**1,192**	**420**	**1,502**	**165**	**132**	**246**	**543**

See footnotes at end of table.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**59,731**	**246**
Algeria	0	0	0	0	0	0	0	0	3,184	13
Iraq	0	0	0	0	0	0	0	0	21,873	90
Kuwait	0	0	0	0	0	0	0	0	946	4
Saudi Arabia	0	0	0	0	0	0	0	20	33,728	139
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**69,879**	**288**
Ecuador	0	0	0	0	0	0	0	0	1,816	7
Indonesia	0	0	0	0	0	0	0	0	1,680	7
Nigeria	0	0	0	0	0	0	0	0	35,432	146
Venezuela	0	0	0	0	0	0	0	0	30,951	127
Non OPEC	**0**	**308**	**381**	**0**	**190**	**105**	**365**	**22,559**	**178,955**	**736**
Canada	0	308	363	0	190	105	345	22,511	138,913	572
Colombia	0	0	0	0	0	0	0	0	1,526	6
Egypt	0	0	0	0	0	0	0	0	571	2
Germany, FR (W)	0	0	0	0	0	0	18	18	18	(s)
Mexico	0	0	0	0	0	0	0	10	20,469	84
Norway	0	0	0	0	0	0	0	0	1,462	6
Trinidad and Tobago	0	0	0	0	0	0	0	0	5,097	21
Turkey	0	0	0	0	0	0	0	0	499	2
United Kingdom	0	0	18	0	0	0	0	18	6,249	26
Yemen (Sana)	0	0	0	0	0	0	0	0	4,005	16
Zaire	0	0	0	0	0	0	0	0	144	1
Other	0	0	0	0	0	0	2	2	2	(s)
Total	**0**	**308**	**381**	**0**	**190**	**105**	**365**	**22,579**	**308,565**	**1,270**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo-nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**371,969**	**4,072**	**29,438**	**0**	**0**	**1,202**	**203**	**890**	**589**	**1,505**	**2,984**
Algeria	12,621	3,479	7,093	0	0	0	0	890	354	242	1,486
Iraq	137,340	0	1,432	0	0	0	0	0	0	0	0
Kuwait	24,971	171	614	0	0	0	0	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	193,459	422	18,549	0	0	1,202	203	0	235	588	823
United Arab Emirates	2,285	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	**178,644**	**1,189**	**6,939**	**1,754**	**1,558**	**1,379**	**207**	**358**	**0**	**327**	**685**
Ecuador	2,482	0	0	0	0	0	0	0	0	0	0
Gabon	7,187	0	0	0	0	0	0	0	0	0	0
Indonesia	2,290	0	742	0	0	0	0	0	0	0	0
Nigeria	72,397	0	0	0	0	0	0	0	0	0	0
Venezuela	94,288	1,189	6,197	1,754	1,558	1,379	207	358	0	327	685
Non OPEC	**298,383**	**12,569**	**30,108**	**508**	**3,614**	**3,075**	**30**	**639**	**1,259**	**1,437**	**3,335**
Angola	39,715	0	0	0	0	0	0	0	0	0	0
Argentina	1,929	0	188	32	0	0	0	269	0	0	269
Australia	648	1,276	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	0	281	281
Belgium	0	0	1,169	0	0	0	0	0	0	0	0
Benin	865	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	570	0	0	0	0	0	0
Cameroon	1,660	0	0	0	0	0	0	0	0	0	0
Canada	2,603	1,105	2,948	0	0	0	0	0	257	0	257
China, People's Republic of	12,454	0	0	0	0	0	0	0	0	0	0
Colombia	29,659	0	481	0	0	0	0	0	0	0	0
Congo	5,862	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	1,244	0	0	0	0	0	0	0	0
France	0	40	0	0	500	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0	0
Guatemala	633	0	0	0	0	0	0	0	0	0	0
India	210	0	3,818	0	0	0	0	0	0	0	0
Italy	0	27	2,882	118	229	0	0	0	536	0	536
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	3,087	0	0	0	0	0	0	0	0	0	0
Mexico	120,527	9,731	0	0	5	1,978	30	0	0	706	706
Netherlands	0	4	2,873	116	536	0	0	0	0	0	0
Netherlands Antilles	0	0	509	0	0	0	0	0	0	0	0
Norway	14,911	0	334	0	0	0	0	0	0	0	0
Oman	11,412	0	256	0	0	0	0	0	0	0	0
Portugal	0	16	0	26	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	2,113	0	278	0	0	0	219	181	400
Sweden	0	0	381	0	0	0	0	0	0	0	0
Syria	218	0	209	0	0	0	0	0	0	0	0
Trinidad and Tobago	11,448	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	438	183	0	0	0	0	0	0	0
United Kingdom	37,098	364	1,305	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	3,754	0	0	0	0	370	0	0	370
Virgin Islands	0	0	3,796	33	1,472	1,097	0	0	247	0	247
Yemen (Sana)	1,990	0	671	0	0	0	0	0	0	0	0
Zaire	1,454	0	0	0	0	0	0	0	0	0	0
Other	0	0	735	0	24	0	0	0	0	269	269
Total	**848,996**	**17,830**	**66,485**	**2,262**	**5,172**	**5,656**	**440**	**1,887**	**1,848**	**3,269**	**7,004**

See footnotes at end of table.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**29**	**5,997**	**23,979**	**0**	**0**	**0**	**67,904**	**439,873**	**1,810**
Algeria	0	29	5,738	23,979	0	0	0	41,804	54,425	224
Iraq	0	0	0	0	0	0	0	1,432	138,772	571
Kuwait	0	0	0	0	0	0	0	785	25,756	106
Qatar	0	0	0	0	0	0	0	0	1,293	5
Saudi Arabia	0	0	259	0	0	0	0	21,458	214,917	884
United Arab Emirates	0	0	0	0	0	0	0	2,425	4,710	19
Other OPEC	**0**	**129**	**1,691**	**0**	**0**	**174**	**28**	**15,733**	**194,377**	**800**
Ecuador	0	0	0	0	0	0	0	0	2,482	10
Gabon	0	0	0	0	0	0	0	0	7,187	30
Indonesia	0	0	716	0	0	0	28	1,486	3,776	16
Nigeria	0	0	0	0	0	0	0	0	72,397	298
Venezuela	0	129	975	0	0	174	0	14,247	108,535	447
Non OPEC	**442**	**1,594**	**8,210**	**262**	**93**	**112**	**536**	**64,488**	**362,871**	**1,493**
Angola	0	0	0	0	0	0	0	0	39,715	163
Argentina	0	159	15	0	0	0	267	930	2,859	12
Australia	0	0	0	0	0	0	0	1,276	1,924	8
Bahama Islands	0	0	0	0	0	0	0	281	281	1
Belgium	0	0	0	0	0	0	2	1,171	1,171	5
Benin	0	0	0	0	0	0	0	0	865	4
Brazil	0	23	0	0	0	0	0	597	597	2
Cameroon	0	0	0	0	0	0	0	0	1,660	7
Canada	0	586	240	0	0	0	0	5,136	7,739	32
China, People's Republic of	0	0	0	0	93	0	0	93	12,547	52
Colombia	0	0	0	0	0	0	5	486	30,145	124
Congo	0	0	0	0	0	0	0	0	5,862	24
Egypt	0	0	478	0	0	0	3	1,725	1,725	7
France	0	0	345	0	0	0	0	885	885	4
Germany, FR (W)	0	0	0	0	0	0	2	2	2	(s)
Greece	0	0	235	0	0	0	0	235	235	1
Guatemala	0	0	0	0	0	0	0	0	633	3
India	0	0	3,500	0	0	0	0	7,318	7,528	31
Italy	0	0	21	262	0	0	0	4,075	4,075	17
Japan	0	0	11	0	0	0	53	70	70	(s)
Malaysia	0	0	0	0	0	0	0	0	3,087	13
Mexico	0	0	0	0	0	78	191	12,719	133,246	548
Netherlands	0	803	1,666	0	0	0	10	6,008	6,008	25
Netherlands Antilles	0	0	0	0	0	34	0	543	543	2
Norway	0	0	0	0	0	0	0	334	15,245	63
Oman	0	0	0	0	0	0	0	256	11,668	48
Portugal	0	0	0	0	0	0	0	42	42	(s)
Puerto Rico	0	0	244	0	0	0	0	244	244	1
Spain	0	0	107	0	0	0	0	2,898	2,898	12
Sweden	0	0	259	0	0	0	0	640	640	3
Syria	0	0	0	0	0	0	0	209	427	2
Trinidad and Tobago	0	22	0	0	0	0	0	22	11,470	47
Turkey	0	0	0	0	0	0	0	621	621	3
United Kingdom	0	1	728	0	0	0	0	2,398	39,496	163
U.S.S.R.	0	0	321	0	0	0	0	4,445	4,445	18
Virgin Islands	442	0	40	0	0	0	0	7,127	7,127	29
Yemen (Sana)	0	0	0	0	0	0	0	671	2,661	11
Zaire	0	0	0	0	0	0	0	0	1,454	6
Other	0	0	0	0	0	0	3	1,031	1,031	4
Total	**442**	**1,752**	**15,898**	**24,241**	**93**	**286**	**564**	**148,125**	**997,121**	**4,103**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	**17,897**	**1,293**	**5**	**0**	**341**	**0**	**446**	**16**	**0**	**43**	**59**
Canada	17,382	1,293	5	0	341	0	446	16	0	43	59
United Kingdom	515	0	0	0	0	0	0	0	0	0	0
Total	**17,897**	**1,293**	**5**	**0**	**341**	**0**	**446**	**16**	**0**	**43**	**59**
					PAD District V						
Arab OPEC	**5,094**	**0**	**0**	**0**	**1,625**	**374**	**0**	**0**	**0**	**0**	**0**
Iraq	1,449	0	0	0	0	0	0	0	0	0	0
Kuwait	523	0	0	0	0	35	0	0	0	0	0
Saudi Arabia	2,107	0	0	0	1,625	339	0	0	0	0	0
United Arab Emirates	1,015	0	0	0	0	0	0	0	0	0	0
Other OPEC	**26,060**	**0**	**141**	**0**	**0**	**773**	**0**	**2,892**	**0**	**0**	**2,892**
Ecuador	773	0	0	0	0	0	0	0	0	0	0
Indonesia	23,474	0	141	0	0	0	0	2,892	0	0	2,892
Venezuela	1,813	0	0	0	0	773	0	0	0	0	0
Non OPEC	**29,880**	**1,082**	**693**	**496**	**2,405**	**699**	**1,029**	**1,934**	**1,132**	**0**	**3,066**
Argentina	0	0	184	0	219	0	0	0	0	0	0
Australia	10,621	0	0	0	0	0	0	81	145	0	226
Brazil	0	0	0	0	550	0	0	0	0	0	0
Brunei	1,680	0	0	0	0	0	0	0	0	0	0
Canada	2,546	1,082	0	0	1,013	119	830	0	287	0	287
China, People's Republic of	3,321	0	0	481	161	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	243	0	243
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	172	0	0	0	0	0
Italy	0	0	0	0	220	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	3,615	0	0	0	0	0	0	117	0	0	117
Mexico	4,203	0	0	0	0	185	199	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	281	0	0	281
Oman	500	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	242	0	0	0	0	0	0
Singapore	0	0	509	0	0	3	0	1,455	363	0	1,818
Thailand	3,394	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	220	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	94	0	94
Total	**61,034**	**1,082**	**834**	**496**	**4,030**	**1,846**	**1,029**	**4,826**	**1,132**	**0**	**5,958**

See footnotes at end of table.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-August 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	0	0	0	0	0	0	732	2,876	20,773	85
Canada	0	0	0	0	0	0	732	2,876	20,258	83
United Kingdom	0	0	0	0	0	0	0	0	515	2
Total	0	0	0	0	0	0	732	2,876	20,773	85
					PAD District V					
Arab OPEC	0	0	0	0	0	0	0	1,999	7,093	29
Iraq	0	0	0	0	0	0	0	0	1,449	6
Kuwait	0	0	0	0	0	0	0	35	558	2
Saudi Arabia	0	0	0	0	0	0	0	1,964	4,071	17
United Arab Emirates	0	0	0	0	0	0	0	0	1,015	4
Other OPEC	0	0	0	0	0	0	0	3,806	29,866	123
Ecuador	0	0	0	0	0	0	0	0	773	3
Indonesia	0	0	0	0	0	0	0	3,033	26,507	109
Venezuela	0	0	0	0	0	0	0	773	2,586	11
Non OPEC	0	61	297	0	70	13	303	10,214	40,094	165
Argentina	0	0	0	0	0	0	0	403	403	2
Australia	0	0	0	0	0	0	0	226	10,847	45
Brazil	0	0	0	0	0	0	0	550	550	2
Brunei	0	0	0	0	0	0	0	0	1,680	7
Canada	0	61	0	0	0	13	288	3,693	6,239	26
China, People's Republic of	0	0	0	0	39	0	0	681	4,002	16
Colombia	0	0	0	0	0	0	0	243	243	1
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Greece	0	0	0	0	0	0	0	172	172	1
Italy	0	0	0	0	0	0	0	220	220	1
Japan	0	0	50	0	31	0	0	81	81	(s)
Korea, Republic of	0	0	247	0	0	0	0	262	262	1
Malaysia	0	0	0	0	0	0	0	117	3,732	15
Mexico	0	0	0	0	0	0	14	398	4,601	19
Netherlands Antilles	0	0	0	0	0	0	0	281	281	1
Oman	0	0	0	0	0	0	0	0	500	2
Portugal	0	0	0	0	0	0	0	242	242	1
Singapore	0	0	0	0	0	0	0	2,330	2,330	10
Thailand	0	0	0	0	0	0	0	0	3,394	14
Trinidad and Tobago	0	0	0	0	0	0	0	220	220	1
Other	0	0	0	0	0	0	0	94	94	(s)
Total	0	61	297	0	70	13	303	16,019	77,053	317

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, August 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**0**	**346**	**0**	**0**	**1,645**	**1,991**	**64**
Natural Gas Liquids	**125**	**390**	**584**	**4**	**245**	**1,348**	**43**
Pentanes Plus	0	0	26	0	2	28	1
Liquefied Petroleum Gases	125	390	559	4	242	1,321	43
Ethane/Ethylene	2	0	0	0	(s)	3	(s)
Propane/Propylene	55	153	298	2	240	748	24
Normal Butane/Butylene	68	238	261	2	2	570	18
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**1,267**	**918**	**9,541**	**63**	**11,212**	**23,001**	**742**
Finished Motor Gasoline	6	270	1,748	0	356	2,380	77
Naphtha-Type Jet Fuel	0	(s)	225	0	(s)	225	7
Kerosene-Type Jet Fuel	41	12	566	0	308	927	30
Kerosene	4	(s)	2	0	2	9	(s)
Distillate Fuel Oil	18	28	1,290	0	254	1,590	51
Residual Fuel Oil	275	(s)	1,306	0	7,108	8,690	280
Naphtha for Petrochemical Feedstock Use	87	0	131	0	9	227	7
Other Oils for Petrochemical Feedstock Use	0	0	322	0	143	465	15
Special Naphthas	10	33	50	0	297	390	13
Lubricants	253	37	250	8	92	639	21
Waxes	10	3	26	(s)	16	55	2
Petroleum Coke	466	505	3,542	55	2,545	7,113	229
Asphalt and Road Oil	87	29	2	0	17	135	4
Miscellaneous Products	10	2	81	(s)	63	156	5
Total	**1,392**	**1,654**	**10,126**	**67**	**13,101**	**26,341**	**850**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-August 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	10	3,204	0	2	22,089	25,306	104
Natural Gas Liquids	790	2,365	4,066	13	2,231	9,464	39
Pentanes Plus	21	0	349	0	16	386	2
Liquefied Petroleum Gases	769	2,365	3,717	13	2,215	9,078	37
Ethane/Ethylene	14	(s)	0	0	3	17	(s)
Propane/Propylene	258	1,275	2,423	8	2,183	6,147	25
Normal Butane/Butylene	496	1,089	1,294	5	30	2,914	12
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	7,896	4,150	72,439	114	69,195	153,794	633
Finished Motor Gasoline	219	447	9,167	1	877	10,711	44
Naphtha-Type Jet Fuel	(s)	(s)	259	0	1,006	1,265	5
Kerosene-Type Jet Fuel	73	85	2,793	(s)	1,631	4,581	19
Kerosene	52	24	39	0	37	153	1
Distillate Fuel Oil	244	370	10,074	1	4,507	15,197	63
Residual Fuel Oil	2,985	198	12,329	0	35,388	50,900	209
Naphtha for Petrochemical Feedstock Use	193	2	1,011	0	51	1,258	5
Other Oils for Petrochemical Feedstock Use	0	0	3,194	0	1,959	5,152	21
Special Naphthas	91	127	954	2	794	1,969	8
Lubricants	1,349	336	2,190	38	723	4,636	19
Waxes	60	33	217	(s)	122	432	2
Petroleum Coke	2,306	2,320	29,877	71	21,845	56,418	232
Asphalt and Road Oil	246	199	42	(s)	104	592	2
Miscellaneous Products	79	7	293	(s)	151	530	2
Total	8,696	9,718	76,505	129	93,515	188,563	776

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, August 1990
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	6
Australia	0	0	(s)	0	0	0	5	0	(s)
Bahama Islands	0	0	6	44	24	0	387	688	0
Bahrain	0	0	0	0	0	0	0	0	0
Belgium & Luxembourg	0	2	(s)	(s)	0	0	(s)	0	39
Brazil	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	0	0	0	0	0	0
Canada	346	0	416	430	168	2	89	800	1
Chile	0	0	(s)	0	0	0	0	0	0
China, People's Republic of	0	0	0	0	0	0	0	0	(s)
China, Taiwan	0	0	(s)	0	0	(s)	(s)	1,577	2
Colombia	0	0	52	0	0	0	0	0	(s)
Costa Rica	0	0	(s)	66	25	0	138	0	(s)
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	25	0	0	0	(s)	0	0
Ecuador	0	0	(s)	0	0	0	0	0	1
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	65	20	0	20	0	(s)
Finland	0	0	36	0	0	0	0	0	0
France	0	0	97	0	0	0	(s)	0	0
French Pacific Islands	0	0	0	0	0	0	(s)	309	0
Germany, FR (W)	0	0	50	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	1	0	0	0	0	0	(s)
Guatemala	0	0	15	147	20	0	157	(s)	1
Guinea	0	0	0	0	0	0	0	0	0
Honduras	0	0	6	0	0	0	(s)	(s)	2
Hong Kong	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	2
Indonesia	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	171	1	39	0	(s)
Italy	0	0	2	0	0	0	0	0	20
Jamaica	0	7	24	0	0	(s)	0	454	0
Japan	0	2	3	(s)	500	(s)	197	1,210	25
Korea, Republic of	0	0	1	(s)	0	0	2	2,123	3
Malaysia	0	0	0	0	0	0	0	0	(s)
Mexico	0	17	512	1,375	0	3	20	942	5
Netherlands	0	0	3	252	225	0	0	0	101
Netherlands Antilles	0	0	0	0	0	0	(s)	0	0
New Zealand	0	0	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Panama	0	0	(s)	0	0	0	137	236	3
Peru	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	(s)
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	25	0	0	0	9	105	5
Saudi Arabia	0	0	0	0	0	0	(s)	(s)	3
Singapore	0	0	0	0	0	0	(s)	230	(s)
South Africa	0	0	0	0	0	1	0	0	0
Spain	0	0	0	0	0	0	0	0	2
Suriname	0	0	18	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	1
Switzerland	0	0	0	0	0	(s)	0	0	0
Thailand	0	0	(s)	0	0	0	0	0	3
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	1	1	0	0	(s)	15	0
U.S.S.R.	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	187	0	0
Venezuela	0	0	2	0	0	0	0	0	(s)
Virgin Islands	1,645	0	0	0	0	2	0	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	0	23	0	0	0	201	(s)	1
Total	1,991	28	1,321	2,380	1,152	9	1,590	8,690	227

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, August 1990 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	52	(s)	0	0	(s)	58	2
Australia	0	0	6	1	281	(s)	(s)	293	9
Bahama Islands	0	0	2	0	0	9	(s)	1,160	37
Bahrain	0	0	0	0	64	0	0	64	2
Belgium & Luxembourg	0	0	1	(s)	537	2	1	584	19
Brazil	0	0	1	4	0	0	(s)	5	(s)
Cameroon	0	0	0	0	38	0	0	38	1
Canada	0	67	137	12	834	108	3	3,411	110
Chile	0	(s)	2	1	0	0	(s)	3	(s)
China, People's Republic of	0	(s)	(s)	0	0	0	0	(s)	(s)
China, Taiwan	0	(s)	33	(s)	1	(s)	2	1,616	52
Colombia	0	(s)	27	(s)	0	0	1	81	3
Costa Rica	0	1	11	(s)	0	0	(s)	242	8
Denmark	0	0	(s)	0	0	(s)	0	(s)	(s)
Dominican Republic	0	0	3	(s)	0	(s)	(s)	29	1
Ecuador	0	0	1	(s)	0	(s)	(s)	3	(s)
Egypt	0	0	1	0	0	0	0	1	(s)
El Salvador	0	0	1	(s)	0	0	0	106	3
Finland	0	0	3	0	0	0	(s)	40	1
France	0	0	1	3	182	2	(s)	284	9
French Pacific Islands	0	0	(s)	0	0	0	0	309	10
Germany, FR (W)	0	0	5	3	24	2	(s)	84	3
Ghana	0	0	(s)	0	44	0	0	44	1
Greece	0	0	1	0	474	0	59	534	17
Guatemala	0	1	2	(s)	0	0	0	342	11
Guinea	0	0	(s)	0	0	0	0	(s)	(s)
Honduras	0	(s)	4	0	0	0	0	13	(s)
Hong Kong	0	0	3	1	0	0	(s)	4	(s)
India	0	0	3	(s)	0	(s)	1	6	(s)
Indonesia	0	0	1	(s)	0	(s)	0	2	(s)
Ireland	0	0	(s)	0	0	0	0	(s)	(s)
Israel	0	4	5	(s)	0	0	0	219	7
Italy	88	0	1	(s)	1,027	1	74	1,212	39
Jamaica	0	4	(s)	0	0	0	(s)	490	16
Japan	17	272	53	5	1,560	1	2	3,845	124
Korea, Republic of	126	(s)	17	1	(s)	0	(s)	2,274	73
Malaysia	0	0	1	1	0	0	0	2	(s)
Mexico	0	1	102	16	55	5	3	3,055	99
Netherlands	0	0	2	1	707	1	4	1,295	42
Netherlands Antilles	0	0	2	(s)	0	0	(s)	2	(s)
New Zealand	0	0	1	(s)	129	0	(s)	130	4
Nigeria	0	0	(s)	0	0	0	(s)	(s)	(s)
Norway	0	0	2	(s)	0	0	0	2	(s)
Panama	0	2	3	(s)	0	0	0	381	12
Peru	0	0	(s)	(s)	0	0	(s)	(s)	(s)
Philippines	0	0	2	1	0	(s)	(s)	3	(s)
Portugal	0	0	(s)	(s)	0	(s)	0	(s)	(s)
Puerto Rico	0	38	14	(s)	0	0	2	198	6
Saudi Arabia	0	(s)	1	0	0	0	(s)	5	(s)
Singapore	142	(s)	5	1	0	(s)	(s)	380	12
South Africa	0	0	(s)	(s)	106	(s)	(s)	107	3
Spain	0	0	12	(s)	509	(s)	(s)	523	17
Suriname	0	0	(s)	0	0	0	(s)	18	1
Sweden	0	0	1	(s)	0	0	(s)	2	(s)
Switzerland	0	0	(s)	(s)	0	0	0	1	(s)
Thailand	91	(s)	8	(s)	0	0	(s)	103	3
Trinidad and Tobago	0	(s)	(s)	(s)	0	0	0	1	(s)
Turkey	0	0	0	(s)	318	0	0	318	10
United Arab Emirates	0	0	1	0	0	0	0	1	(s)
United Kingdom	0	0	48	1	0	1	(s)	68	2
U.S.S.R.	0	0	41	0	0	0	0	41	1
Uruguay	0	0	2	0	0	0	0	189	6
Venezuela	0	0	2	(s)	82	1	(s)	88	3
Virgin Islands	0	0	(s)	0	0	0	0	1,647	53
Yugoslavia	0	0	0	0	24	0	0	24	1
Other	0	(s)	11	(s)	118	2	1	357	12
Total	**465**	**390**	**639**	**55**	**7,113**	**135**	**156**	**26,341**	**850**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-August 1990

(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	0	0	0	0	0	0	6
Australia	0	0	3	36	0	3	716	1,579	40
Bahama Islands	0	0	43	467	325	0	1,954	4,147	(s)
Bahrain	0	0	0	0	0	0	3	0	(s)
Belgium & Luxembourg	0	126	83	1	0	2	3	1	150
Brazil	0	0	(s)	1	0	0	0	0	77
Cameroon	0	0	0	0	0	0	0	0	0
Canada	3,217	0	2,579	1,128	1,870	59	960	4,034	12
Chile	0	(s)	1	53	0	0	45	0	4
China, People's Republic of	0	0	0	0	0	0	2	1	2
China, Taiwan	300	0	58	0	0	9	4	6,069	23
Colombia	0	0	79	100	0	0	(s)	0	3
Costa Rica	0	0	1	474	73	0	901	0	12
Denmark	0	0	4	0	0	0	0	0	(s)
Dominican Republic	0	0	336	73	28	0	206	587	6
Ecuador	0	0	(s)	11	0	0	3	0	4
Egypt	0	0	(s)	0	0	0	0	1	(s)
El Salvador	0	0	31	307	43	0	207	0	2
Finland	0	0	36	0	0	(s)	0	0	0
France	0	0	119	(s)	0	0	(s)	0	19
French Pacific Islands	0	0	0	0	0	0	(s)	852	0
Germany, FR (W)	0	0	172	1	0	2	(s)	58	30
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	2	3	0	0	1	30	(s)
Guatemala	0	0	59	1,161	120	10	1,535	1	2
Guinea	0	0	0	0	0	0	(s)	0	0
Honduras	0	0	23	35	0	16	51	(s)	11
Hong Kong	0	6	(s)	0	0	0	15	10	1
India	0	0	1	0	0	0	0	0	20
Indonesia	0	0	0	0	0	0	0	0	(s)
Ireland	0	0	0	0	0	1	0	0	0
Israel	0	0	6	242	560	1	40	213	1
Italy	0	0	46	0	0	2	(s)	681	20
Jamaica	0	8	107	143	165	1	572	4,192	3
Japan	0	8	12	214	2,089	3	1,563	4,788	193
Korea, Republic of	0	0	13	(s)	0	(s)	676	9,256	107
Malaysia	0	0	0	0	0	1	0	0	2
Mexico	0	214	4,551	5,288	(s)	34	275	9,554	34
Netherlands	0	0	32	279	225	(s)	3	(s)	190
Netherlands Antilles	0	0	0	139	0	0	1,044	777	(s)
New Zealand	0	0	(s)	0	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	2	(s)	0	1	0	0	(s)
Panama	0	0	44	54	47	0	983	1,970	9
Peru	0	2	60	0	290	0	100	321	(s)
Philippines	0	0	(s)	0	0	0	0	1	1
Poland	0	0	0	0	0	0	88	73	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	1,281	18	135	216	0	3	89	109	157
Saudi Arabia	0	0	(s)	0	0	0	2	(s)	10
Singapore	0	0	2	0	0	0	860	751	6
South Africa	0	0	0	0	0	1	(s)	0	0
Spain	0	0	0	0	0	0	708	120	10
Suriname	0	0	101	0	0	0	0	0	(s)
Sweden	0	0	0	(s)	0	1	1	(s)	1
Switzerland	0	0	43	1	0	(s)	0	0	0
Thailand	0	0	2	34	0	(s)	0	0	16
Trinidad and Tobago	0	0	1	0	(s)	0	0	140	0
Turkey	0	0	32	0	0	0	(s)	0	0
United Arab Emirates	0	0	0	(s)	0	0	6	0	0
United Kingdom	0	2	7	3	0	0	4	119	1
U.S.S.R.	0	0	0	0	0	0	(s)	0	0
Uruguay	0	0	0	0	0	0	187	131	0
Venezuela	0	0	145	215	0	0	1,153	334	(s)
Virgin Islands	20,508	0	(s)	0	0	3	1	0	0
Yugoslavia	0	0	0	0	0	0	0	0	58
Other	0	1	106	30	11	0	234	1	9
Total	**25,306**	**386**	**9,078**	**10,711**	**5,846**	**153**	**15,197**	**50,900**	**1,258**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-August 1990 (Continued)

(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	142	(s)	76	(s)	(s)	0	(s)	224	1
Australia	128	91	74	5	2,040	1	2	4,718	19
Bahama Islands	0	0	20	0	0	10	1	6,968	29
Bahrain	0	0	1	0	465	0	0	468	2
Belgium & Luxembourg	0	24	87	3	4,587	10	3	5,079	21
Brazil	0	0	50	4	237	(s)	(s)	371	2
Cameroon	0	0	(s)	0	75	0	0	76	(s)
Canada	0	294	1,007	71	3,530	426	21	19,206	79
Chile	0	(s)	74	2	3	(s)	3	186	1
China, People's Republic of	0	(s)	2	1	0	(s)	(s)	8	(s)
China, Taiwan	0	1	196	12	36	2	19	6,728	28
Colombia	0	(s)	54	1	2	(s)	1	241	1
Costa Rica	0	13	70	1	0	0	1	1,545	6
Denmark	0	2	1	1	394	1	(s)	402	2
Dominican Republic	0	1	42	1	0	6	1	1,287	5
Ecuador	0	(s)	25	1	0	(s)	1	45	(s)
Egypt	0	0	10	(s)	0	(s)	(s)	12	(s)
El Salvador	0	3	13	(s)	0	0	(s)	607	2
Finland	0	0	10	(s)	334	0	1	382	2
France	1,018	(s)	16	17	1,382	17	88	2,676	11
French Pacific Islands	0	(s)	1	0	0	0	(s)	854	4
Germany, FR (W)	70	1	40	51	583	30	4	1,042	4
Ghana	0	0	1	0	267	0	0	267	1
Greece	0	1	5	(s)	1,305	0	59	1,406	6
Guatemala	0	11	36	2	0	0	1	2,938	12
Guinea	0	0	5	0	0	0	(s)	5	(s)
Honduras	0	6	24	(s)	0	0	(s)	167	1
Hong Kong	0	1	13	4	0	0	3	53	(s)
India	0	(s)	36	2	(s)	1	5	66	(s)
Indonesia	0	1	14	1	200	1	23	239	1
Ireland	0	0	7	1	0	0	(s)	9	(s)
Israel	0	4	16	(s)	546	0	1	1,631	7
Italy	401	5	12	4	8,891	5	74	10,141	42
Jamaica	0	4	16	1	61	0	2	5,275	22
Japan	609	391	324	26	11,183	13	15	21,431	88
Korea, Republic of	1,058	194	87	5	605	2	64	12,067	50
Malaysia	209	(s)	5	7	17	0	1	242	1
Mexico	6	18	801	87	507	27	24	21,420	88
Netherlands	515	703	60	6	5,895	8	52	7,968	33
Netherlands Antilles	0	0	245	1	7	2	(s)	2,214	9
New Zealand	0	0	12	1	384	(s)	(s)	399	2
Nigeria	0	0	7	(s)	0	0	1	8	(s)
Norway	0	0	4	(s)	456	0	(s)	463	2
Panama	0	4	150	(s)	0	0	(s)	3,261	13
Peru	0	1	53	(s)	1	(s)	(s)	828	3
Philippines	119	0	31	3	(s)	(s)	1	157	1
Poland	0	0	1	0	0	0	0	162	1
Portugal	0	0	10	(s)	0	(s)	(s)	11	(s)
Puerto Rico	0	171	149	9	0	0	10	2,346	10
Saudi Arabia	0	1	26	(s)	(s)	0	7	48	(s)
Singapore	240	1	61	2	25	6	17	1,971	8
South Africa	0	(s)	(s)	(s)	486	2	(s)	490	2
Spain	365	(s)	31	51	6,180	3	1	7,468	31
Suriname	0	0	3	0	0	(s)	1	105	(s)
Sweden	0	1	9	1	295	(s)	1	309	1
Switzerland	0	0	4	(s)	8	1	(s)	56	(s)
Thailand	180	(s)	25	(s)	0	0	5	262	1
Trinidad and Tobago	0	(s)	1	(s)	2	(s)	1	146	1
Turkey	0	0	14	(s)	2,140	0	0	2,186	9
United Arab Emirates	0	(s)	6	(s)	239	(s)	(s)	252	1
United Kingdom	92	(s)	117	44	1,384	7	6	1,786	7
U.S.S.R.	0	6	215	0	279	0	0	501	2
Uruguay	0	0	9	(s)	0	0	(s)	326	1
Venezuela	0	2	10	2	417	2	1	2,282	9
Virgin Islands	0	9	1	(s)	0	0	(s)	20,524	84
Yugoslavia	0	0	(s)	(s)	638	2	0	698	3
Other	0	2	112	1	335	6	3	850	3
Total	**5,152**	**1,969**	**4,636**	**432**	**56,418**	**592**	**530**	**188,563**	**776**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, August 1990
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**2,305**	**54**	**30**	**11**	**(s)**	**52**	**(s)**	**(s)**	**263**	**411**	**2,716**
Algeria	80	35	0	0	0	52	0	0	182	269	349
Iraq	966	0	0	0	0	0	0	0	0	0	966
Kuwait	207	6	0	0	0	0	0	0	0	6	213
Qatar	0	(s)	0	0	0	0	(s)	0	0	(s)	(s)
Saudi Arabia	1,052	14	30	11	(s)	(s)	0	(s)	81	136	1,189
United Arab Emirates	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Other OPEC	**1,755**	**(s)**	**120**	**41**	**146**	**76**	**-3**	**(s)**	**40**	**420**	**2,175**
Ecuador	69	(s)	0	0	0	12	0	(s)	(s)	12	81
Gabon	119	0	0	0	0	0	0	0	0	0	119
Indonesia	69	0	0	0	0	15	0	(s)	(s)	14	83
Nigeria	881	0	0	0	0	0	0	(s)	(s)	(s)	881
Venezuela	617	(s)	120	41	146	49	-3	(s)	40	394	1,011
Non OPEC	**2,308**	**110**	**86**	**-6**	**95**	**166**	**-226**	**-11**	**297**	**510**	**2,818**
Angola	134	0	0	0	0	0	0	(s)	0	(s)	134
Argentina	17	0	0	0	0	14	0	-2	2	14	31
Australia	26	17	0	0	(s)	0	-9	(s)	(s)	8	33
Bahama Islands	0	(s)	-1	-1	-12	18	0	(s)	(s)	3	3
Belgium & Luxembourg	0	(s)	(s)	0	(s)	6	-17	(s)	28	16	16
Brazil	0	0	34	0	0	11	0	(s)	(s)	45	45
Cameroon	0	0	0	0	0	0	-1	0	0	-1	-1
Canada	665	61	37	4	47	12	-26	-3	33	166	831
China, People's Republic of	77	0	0	0	0	0	0	1	1	2	79
China, Taiwan	0	(s)	0	0	(s)	-51	(s)	-1	(s)	-52	-52
Colombia	132	-2	0	0	6	65	0	-1	(s)	68	200
Congo	29	0	0	0	0	0	0	(s)	0	(s)	29
Egypt	40	0	0	0	0	0	0	(s)	(s)	(s)	40
France	0	-2	0	0	(s)	16	-6	(s)	(s)	7	7
Greece	0	(s)	8	0	0	0	-15	(s)	-2	-10	-10
Guatemala	0	(s)	-5	-1	-5	(s)	0	(s)	(s)	-11	-11
India	0	0	0	0	0	0	0	(s)	27	27	27
Italy	0	(s)	0	0	0	22	-33	(s)	16	4	4
Jamaica	0	-1	0	0	0	-15	0	(s)	(s)	-16	-16
Japan	0	(s)	(s)	-16	-6	-39	-50	-2	-10	-124	-124
Korea, Republic of	0	(s)	(s)	0	(s)	-68	(s)	-1	-3	-72	-72
Malaysia	128	0	0	0	0	0	0	(s)	(s)	(s)	128
Mexico	676	44	-44	1	18	-19	-2	-3	5	-1	675
Netherlands	0	(s)	-8	-7	0	11	-23	(s)	24	-3	-3
Netherlands Antilles	0	0	0	0	(s)	41	0	(s)	(s)	41	41
Norway	159	0	0	0	0	0	0	(s)	(s)	(s)	159
Oman	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Panama	0	(s)	0	0	-4	-8	0	(s)	(s)	-12	-12
Peru	0	0	0	0	0	28	0	(s)	(s)	28	28
Puerto Rico	0	-1	0	0	(s)	-1	0	6	18	22	22
Romania	0	0	0	0	0	0	0	0	17	17	17
Spain	0	0	23	0	0	3	-16	(s)	29	37	37
Sweden	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Syria	0	0	0	0	0	11	0	0	7	18	18
Thailand	0	(s)	0	0	0	0	0	(s)	-3	-3	-3
Trinidad and Tobago	91	0	0	0	0	17	0	(s)	(s)	17	108
Turkey	0	0	0	0	0	0	-10	0	(s)	-10	-10
United Kingdom	166	(s)	(s)	0	(s)	3	0	-2	(s)	2	168
U.S.S.R.	0	0	0	0	0	12	0	-1	61	71	71
Virgin Islands	-53	0	39	21	66	56	0	(s)	48	230	177
Yemen (Sana)	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Zaire	21	0	0	0	0	0	0	0	0	0	21
Other	0	-5	3	-7	-14	21	-16	-2	1	-19	-19
Total	**6,367**	**164**	**236**	**46**	**241**	**294**	**-229**	**-11**	**601**	**1,341**	**7,709**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-August 1990

(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**2,030**	**34**	**34**	**15**	**25**	**44**	**-1**	**(s)**	**254**	**405**	**2,435**
Algeria	67	29	0	0	19	34	0	(s)	161	243	309
Iraq	726	0	0	0	1	0	0	(s)	6	7	732
Kuwait	115	1	0	(s)	1	0	0	(s)	3	4	119
Qatar	5	(s)	0	0	(s)	0	(s)	(s)	0	(s)	5
Saudi Arabia	1,104	5	34	15	4	7	(s)	(s)	78	143	1,246
United Arab Emirates	14	0	(s)	0	(s)	3	-1	(s)	7	9	23
Other OPEC	**1,760**	**4**	**78**	**37**	**117**	**96**	**-3**	**(s)**	**67**	**396**	**2,156**
Ecuador	44	(s)	(s)	0	1	11	0	(s)	(s)	11	55
Gabon	70	0	0	0	0	(s)	0	(s)	0	(s)	70
Indonesia	113	0	0	0	0	12	-1	(s)	6	18	131
Iran	0	0	0	0	0	0	(s)	0	0	(s)	(s)
Nigeria	886	0	1	0	0	12	0	(s)	(s)	13	899
Venezuela	647	4	78	37	116	62	-2	(s)	61	355	1,002
Non OPEC	**2,365**	**114**	**218**	**39**	**100**	**211**	**-226**	**-9**	**328**	**774**	**3,139**
Angola	264	0	0	0	0	0	0	(s)	(s)	(s)	264
Argentina	10	0	4	0	5	11	1	(s)	7	28	37
Australia	50	5	(s)	0	-3	-6	-8	(s)	-1	-13	36
Bahama Islands	0	(s)	-2	-1	-7	28	0	(s)	(s)	17	17
Belgium & Luxembourg	0	(s)	7	0	(s)	3	-19	(s)	23	13	13
Brazil	0	(s)	23	0	0	34	-1	(s)	(s)	55	55
Brunei	9	0	0	0	0	0	0	0	0	0	9
Cameroon	14	0	0	0	0	5	(s)	(s)	0	5	19
Canada	621	92	47	3	49	12	-13	-2	29	218	839
China, People's Republic of	80	0	1	0	(s)	(s)	0	1	2	3	83
China, Taiwan	-1	(s)	0	0	(s)	-25	(s)	-1	(s)	-26	-28
Colombia	140	(s)	(s)	0	1	47	(s)	(s)	2	49	189
Congo	28	0	0	0	0	4	0	(s)	(s)	4	32
Egypt	25	(s)	0	0	0	1	0	(s)	11	12	37
France	0	(s)	25	1	3	9	-6	(s)	-1	31	31
Greece	0	(s)	3	2	3	2	-5	(s)	2	5	5
Guatemala	3	(s)	-5	(s)	-6	(s)	0	(s)	(s)	-12	-9
India	1	(s)	0	0	0	0	(s)	(s)	32	32	33
Italy	3	(s)	34	1	1	7	-37	(s)	23	29	32
Jamaica	0	(s)	-1	-1	-2	-17	(s)	(s)	(s)	-21	-21
Japan	0	(s)	-1	-9	-6	-20	-46	-1	-5	-87	-87
Korea, Republic of	0	(s)	(s)	0	-3	-38	-2	(s)	-5	-49	-49
Malaysia	31	0	0	0	0	(s)	(s)	(s)	-1	-1	31
Mexico	673	21	-22	11	9	-34	-2	-3	3	-17	656
Netherlands	0	(s)	15	1	3	7	-24	(s)	27	28	28
Netherlands Antilles	0	0	(s)	0	-4	16	(s)	-1	3	14	14
Norway	116	(s)	3	0	1	0	-2	(s)	1	3	119
Oman	49	0	0	0	0	0	0	(s)	1	1	50
Panama	0	(s)	(s)	(s)	-4	-7	0	-1	(s)	-13	-13
Peru	0	(s)	0	-1	(s)	16	(s)	(s)	(s)	14	14
Puerto Rico	-5	-1	-1	0	(s)	(s)	0	6	24	28	23
Romania	0	0	4	1	3	0	0	0	14	21	21
Spain	0	0	25	3	-3	7	-25	(s)	16	23	23
Sweden	0	0	(s)	0	(s)	2	-1	(s)	3	3	3
Syria	1	0	0	0	(s)	4	0	(s)	1	5	6
Thailand	14	(s)	(s)	0	0	0	0	(s)	-1	-1	13
Trinidad and Tobago	79	(s)	1	1	1	22	(s)	(s)	(s)	25	104
Turkey	2	(s)	0	0	(s)	(s)	-9	(s)	4	-4	-2
United Kingdom	191	2	11	(s)	4	7	-6	(s)	12	31	221
U.S.S.R.	0	0	1	0	8	12	-1	-1	17	35	35
Virgin Islands	-84	(s)	45	29	58	85	0	(s)	77	293	208
Yemen (Sana)	29	0	0	0	0	0	0	(s)	3	3	32
Zaire	20	0	0	0	(s)	0	0	(s)	(s)	(s)	20
Other	5	-3	(s)	-2	-8	16	-18	-2	4	-15	-10
Total	**6,155**	**152**	**330**	**91**	**241**	**351**	**-230**	**-10**	**649**	**1,575**	**7,730**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, August 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	**16,662**	**80,122**	**771,086**	**11,589**	**79,714**	**959,173**
Refinery	15,603	14,310	50,003	1,820	24,098	105,834
Tank Farms and Pipelines	1,037	64,509	115,658	8,791	32,381	222,376
Leases	22	1,303	15,819	978	1,292	19,414
Strategic Petroleum Reserve[a]	0	0	589,606	0	0	589,606
Alaskan In Transit	0	0	0	0	21,943	21,943
Total Stocks, All Oils (excluding Crude Oil)	**183,738**	**168,910**	**280,361**	**14,732**	**93,836**	**741,577**
Refinery	44,682	60,596	146,875	9,547	62,219	323,919
Bulk Terminal	112,249	72,528	82,290	2,710	26,145	295,922
Pipeline	26,559	34,297	41,500	2,300	5,334	109,990
Natural Gas Processing Plant	248	1,489	9,696	175	138	11,746
Pentanes Plus	**87**	**2,857**	**5,627**	**141**	**268**	**8,980**
Refinery	14	258	541	2	15	830
Bulk Terminal	37	1,236	2,430	0	10	3,713
Pipeline	0	1,210	1,097	79	226	2,612
Natural Gas Processing Plant	36	153	1,559	60	17	1,825
Liquefied Petroleum Gases	**5,216**	**34,475**	**77,754**	**1,071**	**4,123**	**122,639**
Refinery	1,472	3,794	11,235	420	1,061	17,982
Bulk Terminal	1,919	22,818	51,264	104	2,941	79,046
Pipeline	1,613	6,527	7,118	432	0	15,690
Natural Gas Processing Plant	212	1,336	8,137	115	121	9,921
Ethane/Ethylene	**14**	**4,749**	**15,634**	**139**	**0**	**20,536**
Refinery	12	1	763	0	0	776
Bulk Terminal	2	3,128	10,860	0	0	13,990
Pipeline	0	1,221	2,619	132	0	3,972
Natural Gas Processing Plant	0	399	1,392	7	0	1,798
Propane/Propylene	**3,367**	**18,399**	**29,637**	**448**	**1,022**	**52,873**
Refinery	787	1,931	3,687	124	81	6,610
Bulk Terminal	989	12,808	20,861	102	831	35,591
Pipeline	1,439	3,074	3,116	159	0	7,788
Natural Gas Processing Plant	152	586	1,973	63	110	2,884
Normal Butane/Butylene	**1,760**	**8,615**	**25,099**	**342**	**2,731**	**38,547**
Refinery	615	1,436	5,360	211	734	8,356
Bulk Terminal	917	5,316	15,610	2	1,990	23,835
Pipeline	174	1,592	756	93	0	2,615
Natural Gas Processing Plant	54	271	3,373	36	7	3,741
Isobutane	**75**	**2,712**	**7,384**	**142**	**370**	**10,683**
Refinery	58	426	1,425	85	246	2,240
Bulk Terminal	11	1,566	3,933	0	120	5,630
Pipeline	0	640	627	48	0	1,315
Natural Gas Processing Plant	6	80	1,399	9	4	1,498
Other Hydrocarbons/Alcohol	**165**	**247**	**537**	**158**	**254**	**1,361**
Refinery	165	247	537	158	254	1,361
Unfinished Oils	**13,866**	**17,071**	**53,080**	**1,942**	**25,071**	**111,030**
Refinery						
Naphthas and Lighter	3,723	4,878	13,266	529	4,430	26,826
Kerosene and Light Gas Oils	2,560	1,885	9,075	376	4,185	18,081
Heavy Gas Oils	6,291	5,996	20,595	731	12,492	46,105
Residuum	1,292	4,312	10,144	306	3,964	20,018
Motor Gasoline Blending Components	**4,532**	**8,172**	**16,677**	**1,513**	**6,885**	**37,779**
Refinery	4,406	7,277	15,748	1,450	6,844	35,725
Bulk Terminal	126	594	929	63	20	1,732
Pipeline	0	301	0	0	21	322

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, August 1990 (Continued)

(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	0	107	80	0	12	199
Refinery	0	107	80	0	12	199
Finished Motor Gasoline	54,942	47,550	45,002	4,353	21,702	173,549
Refinery	8,065	9,552	16,200	1,744	8,407	43,968
Bulk Terminal	32,528	23,565	10,450	1,513	11,278	79,334
Pipeline	14,349	14,433	18,352	1,096	2,017	50,247
Finished Leaded Motor Gasoline	115	3,428	936	1,313	4,803	10,595
Refinery	31	679	381	590	1,702	3,383
Bulk Terminal	59	1,329	270	463	2,799	4,920
Pipeline	25	1,420	285	260	302	2,292
Finished Unleaded Motor Gasoline	54,827	44,122	44,066	3,040	16,899	162,954
Refinery	8,034	8,873	15,819	1,154	6,705	40,585
Bulk Terminal	32,469	22,236	10,180	1,050	8,479	74,414
Pipeline	14,324	13,013	18,067	836	1,715	47,955
Finished Aviation Gasoline	254	472	591	49	448	1,814
Refinery	17	109	518	35	169	848
Bulk Terminal	237	309	72	14	279	911
Pipeline	0	54	1	0	0	55
Naphtha-Type Jet Fuel	836	850	2,084	288	1,661	5,719
Refinery	246	405	1,513	218	646	3,028
Bulk Terminal	497	288	143	0	579	1,507
Pipeline	93	157	428	70	436	1,184
Kerosene-Type Jet Fuel	11,717	8,619	15,006	745	6,426	42,513
Refinery	1,943	1,822	7,427	351	3,407	14,950
Bulk Terminal	5,948	3,920	1,667	272	2,183	13,990
Pipeline	3,826	2,877	5,912	122	836	13,573
Kerosene	2,587	1,654	1,615	31	62	5,949
Refinery	151	895	973	10	50	2,079
Bulk Terminal	2,181	618	449	21	7	3,276
Pipeline	255	141	193	0	5	594
Distillate Fuel Oil	57,905	30,369	29,097	2,529	11,193	131,093
Refinery	7,988	8,276	15,159	1,359	5,148	37,930
Bulk Terminal	43,494	13,509	5,620	669	4,481	67,773
Pipeline	6,423	8,584	8,318	501	1,564	25,390
Residual Fuel Oil[b]	20,605	3,774	14,683	521	8,650	48,233
Refinery	2,208	2,514	7,772	521	5,654	18,669
Bulk Terminal	18,397	1,260	6,851	0	2,792	29,300
Pipeline	0	0	60	0	204	264
Less than 0.31% Sulfur	4,254	285	1,493	36	613	6,681
Refinery	846	12	1,460	36	496	2,850
Bulk Terminal	3,408	273	33	0	117	3,831
0.31 to 1.00% Sulfur	7,366	820	4,166	312	870	13,534
Refinery	864	416	1,539	312	652	3,783
Bulk Terminal	6,502	404	2,627	0	218	9,751
Greater than 1.00% Sulfur	8,985	2,669	8,964	173	6,963	27,754
Refinery	498	2,086	4,773	173	4,506	12,036
Bulk Terminal	8,487	583	4,191	0	2,457	15,718
Naphtha for Petrochemical Feedstock Use	162	331	841	0	117	1,451
Refinery	162	331	841	0	117	1,451

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, August 1990 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	4	56	1,843	3	123	2,029
Refinery	4	56	1,843	3	123	2,029
Special Naphthas	612	551	1,605	7	135	2,910
Refinery	105	251	1,413	7	90	1,866
Bulk Terminal	507	300	192	0	45	1,044
Lubricants	2,878	1,906	5,187	47	1,999	12,017
Refinery	743	882	4,489	39	1,119	7,272
Bulk Terminal	2,135	1,024	698	8	880	4,745
Waxes	54	173	398	119	121	865
Refinery	54	173	398	119	121	865
Petroleum Coke	665	1,788	3,259	33	1,823	7,568
Refinery	665	1,788	3,259	33	1,823	7,568
Asphalt and Road Oil	5,964	7,667	3,951	1,168	2,585	21,335
Refinery	2,216	4,607	3,070	1,122	1,999	13,014
Bulk Terminal	3,748	3,060	881	46	586	8,321
Miscellaneous Products	687	221	1,444	14	178	2,544
Refinery	192	181	779	14	89	1,255
Bulk Terminal	495	27	644	0	64	1,230
Pipeline	0	13	21	0	25	59
Total Stocks, All Oils	200,400	249,032	1,051,447	26,321	173,550	1,700,750

[a] Includes 38,395 thousand barrels of domestic crude oil.
[b] Sulfur content not available for stocks held by pipelines.
Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 42. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State, August 1990
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel	Propane/ Propylene
PAD District I	**90**	**40,503**	**2,332**	**51,482**	**20,605**	**1,928**
Connecticut	0	1,700	237	2,955	284	W
Delaware, D.C., Maryland	26	2,146	118	5,476	2,516	W
Florida	0	7,279	161	2,278	464	394
Georgia	2	2,585	88	1,262	230	W
Maine, New Hampshire, Vermont	0	967	380	2,521	935	W
Massachusetts	0	1,771	117	3,002	1,342	W
New Jersey	16	8,280	40	13,020	8,757	W
New York	9	3,385	321	9,692	3,634	W
North Carolina	10	2,714	263	1,591	331	W
Pennsylvania	11	4,979	323	4,967	769	W
Rhode Island	0	582	W	1,543	W	W
South Carolina	0	1,362	105	740	W	W
Virginia	7	2,557	139	2,338	631	W
West Virginia	9	196	W	97	W	W
PAD District II	**2,008**	**31,109**	**1,513**	**21,785**	**3,774**	**15,325**
Illinois	179	6,038	270	3,531	1,578	1,282
Indiana	203	3,617	84	3,030	433	W
Iowa	166	1,186	W	803	W	W
Kansas, Nebraska	463	2,299	31	1,832	59	9,175
Kentucky	10	1,385	47	622	W	W
Michigan	76	3,864	189	1,982	180	1,751
Minnesota	252	1,479	W	2,007	299	W
Missouri	177	1,427	W	771	W	W
North Dakota, South Dakota	39	436	W	747	W	W
Ohio	11	4,253	465	2,120	327	W
Oklahoma	388	1,704	W	1,598	270	999
Tennessee	0	1,857	61	802	248	W
Wisconsin	44	1,564	W	1,940	66	W
PAD District III	**651**	**25,999**	**1,422**	**20,779**	**14,623**	**26,521**
Alabama	0	1,538	72	909	421	88
Arkansas	26	724	W	271	W	W
Louisiana	18	5,136	489	4,440	5,852	2,593
Mississippi	38	2,084	12	1,529	W	3,002
New Mexico	127	281	W	183	22	W
Texas	442	16,236	842	13,447	8,163	20,738
PAD District IV	**1,053**	**2,204**	**31**	**2,028**	**521**	**289**
Colorado	178	641	W	410	W	W
Idaho	133	218	W	124	W	W
Montana	357	601	W	751	42	16
Utah	141	265	W	209	105	185
Wyoming	244	479	W	534	W	32
PAD District V	**4,501**	**15,184**	**57**	**9,629**	**8,446**	**1,022**
Alaska	120	414	W	884	W	W
Arizona	278	576	W	221	W	W
California	2,493	9,786	51	5,445	5,409	193
Hawaii	36	598	W	429	W	W
Nevada	86	227	W	151	W	W
Oregon	521	910	W	747	199	W
Washington	967	2,673	W	1,752	1,286	18
U.S. Total	**8,303**	**114,999**	**5,355**	**105,703**	**47,969**	**45,085**

W = Withheld to avoid disclosure of individual company data.
Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, August 1990
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	**0**	**0**	**0**	**110**	**1,941**	**482**	**0**	**899**	**63,214**
Petroleum Products	**7,616**	**428**	**0**	**4,014**	**4,952**	**1,891**	**0**	**84,898**	**26,330**
Pentanes Plus	0	0	0	0	172	1	0	0	840
Liquefied Petroleum Gases	0	36	0	661	2,025	118	0	2,072	3,316
Unfinished Oils	0	0	0	0	152	0	0	213	162
Motor Gasoline Blending Components	20	47	0	0	0	0	0	0	237
Finished Motor Gasoline	5,055	0	0	2,095	1,607	957	0	48,753	12,165
Leaded	0	0	0	260	87	59	0	0	136
Unleaded	5,055	0	0	1,835	1,520	898	0	48,753	12,029
Finished Aviation Gasoline	0	0	0	0	0	30	0	187	165
Jet Fuel	309	0	0	201	99	550	0	11,774	3,970
Naphtha-Type	0	0	0	0	0	0	0	438	89
Kerosene-Type	309	0	0	201	99	550	0	11,336	3,881
Kerosene	25	0	0	37	0	0	0	242	0
Distillate Fuel Oil	2,109	0	0	633	451	235	0	19,779	4,550
Residual Fuel Oil	0	0	0	17	340	0	0	783	0
Petrochemical Feedstocks[a]	89	30	0	0	9	0	0	0	0
Special Naphthas	0	2	0	0	0	0	0	327	56
Lubricants	9	168	0	87	71	0	0	436	287
Waxes	0	0	0	0	0	0	0	2	0
Asphalt and Road Oil	0	115	0	283	16	0	0	249	582
Miscellaneous Products	0	30	0	0	10	0	0	81	0
Total	**7,616**	**428**	**0**	**4,124**	**6,893**	**2,373**	**0**	**85,797**	**89,544**

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	**0**	**0**	**3,135**	**1,530**	**0**	**0**	**0**	**10,537**	**0**
Petroleum Products	**0**	**1,956**	**1,646**	**1,243**	**1,405**	**0**	**0**	**0**	**0**
Pentanes Plus	0	0	132	151	0	0	0	0	0
Liquefied Petroleum Gases	0	0	507	1,092	0	0	0	0	0
Unfinished Oils	0	100	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	871	516	0	761	0	0	0	0
Leaded	0	129	148	0	224	0	0	0	0
Unleaded	0	742	368	0	537	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	480	67	0	126	0	0	0	0
Naphtha-Type	0	249	65	0	70	0	0	0	0
Kerosene-Type	0	231	2	0	56	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	436	424	0	518	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	69	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	**0**	**1,956**	**4,781**	**2,773**	**1,405**	**0**	**0**	**10,537**	**0**

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[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, August 1990
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	0	1,941	482	0	63,145
Petroleum Products	7,470	0	2,028	4,364	1,891	69,107	21,917
Pentanes Plus	0	0	0	172	1	0	840
Liquefied Petroleum Gases	0	0	661	2,025	118	1,916	3,294
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	5,055	0	943	1,607	957	39,612	10,291
Leaded	0	0	0	87	59	0	136
Unleaded	5,055	0	943	1,520	898	39,612	10,155
Finished Aviation Gasoline	0	0	0	0	30	16	143
Jet Fuel	309	0	128	99	550	9,946	3,766
Naphtha-Type	0	0	0	0	0	124	89
Kerosene-Type	309	0	128	99	550	9,822	3,677
Kerosene	25	0	0	0	0	227	0
Distillate Fuel Oil	2,081	0	296	451	235	17,390	3,583
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	10	0	0	0
Total	7,470	0	2,028	6,305	2,373	69,107	85,062

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	3,135	1,530	0	3,910	0
Petroleum Products	0	1,787	1,646	1,243	1,405	0	0
Pentanes Plus	0	0	132	151	0	0	0
Liquefied Petroleum Gases	0	0	507	1,092	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	871	516	0	761	0	0
Leaded	0	129	148	0	224	0	0
Unleaded	0	742	368	0	537	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	480	67	0	126	0	0
Naphtha-Type	0	249	65	0	70	0	0
Kerosene-Type	0	231	2	0	56	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	436	424	0	518	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,787	4,781	2,773	1,405	3,910	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, August 1990
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	0	0	0	110	0	0	899	0
Petroleum Products	146	428	0	1,986	588	0	15,791	0
Liquefied Petroleum Gases	0	36	0	0	0	0	156	0
Unfinished Oils	0	0	0	0	152	0	213	0
Motor Gasoline Blending Components	20	47	0	0	0	0	0	0
Finished Motor Gasoline	0	0	0	1,152	0	0	9,141	0
Leaded	0	0	0	260	0	0	0	0
Unleaded	0	0	0	892	0	0	9,141	0
Finished Aviation Gasoline	0	0	0	0	0	0	171	0
Jet Fuel	0	0	0	73	0	0	1,828	0
Naphtha-Type	0	0	0	0	0	0	314	0
Kerosene-Type	0	0	0	73	0	0	1,514	0
Kerosene	0	0	0	37	0	0	15	0
Distillate Fuel Oil	28	0	0	337	0	0	2,389	0
Residual Fuel Oil	0	0	0	17	340	0	783	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	17	340	0	783	0
Petrochemical Feedstocks[a]	89	30	0	0	9	0	0	0
Special Naphthas	0	2	0	0	0	0	327	0
Lubricants	9	168	0	87	71	0	436	0
Waxes	0	0	0	0	0	0	2	0
Asphalt and Road Oil	0	115	0	283	16	0	249	0
Miscellaneous Products	0	30	0	0	0	0	81	0
Total	146	428	0	2,096	588	0	16,690	0

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	528	371	69	0	0	0	6,627
Petroleum Products	1,293	14,498	4,413	169	0	0	0
Liquefied Petroleum Gases	0	156	22	0	0	0	0
Unfinished Oils	63	150	162	100	0	0	0
Motor Gasoline Blending Components	0	0	237	0	0	0	0
Finished Motor Gasoline	165	8,976	1,874	0	0	0	0
Leaded	0	0	0	0	0	0	0
Unleaded	165	8,976	1,874	0	0	0	0
Finished Aviation Gasoline	123	48	22	0	0	0	0
Jet Fuel	308	1,520	204	0	0	0	0
Naphtha-Type	183	131	0	0	0	0	0
Kerosene-Type	125	1,389	204	0	0	0	0
Kerosene	0	15	0	0	0	0	0
Distillate Fuel Oil	91	2,298	967	0	0	0	0
Residual Fuel Oil	0	783	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	783	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0
Special Naphthas	134	193	56	0	0	0	0
Lubricants	319	117	287	69	0	0	0
Waxes	2	0	0	0	0	0	0
Asphalt and Road Oil	7	242	582	0	0	0	0
Miscellaneous Products	81	0	0	0	0	0	0
Total	1,821	14,869	4,482	169	0	0	6,627

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[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, August 1990

(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	1,009	0	1,009	66,349	2,533	63,816
Petroleum Products	88,912	8,044	80,868	35,592	10,857	24,735
Pentanes Plus	0	0	0	972	173	799
Liquefied Petroleum Gases	2,733	36	2,697	3,823	2,804	1,019
Ethane/Ethylene	0	0	0	256	1,044	-788
Propane/Propylene	2,733	0	2,733	2,421	1,435	986
Normal Butane/Butylene	0	36	-36	424	218	206
Isobutane	0	0	0	722	107	615
Unfinished Oils	213	0	213	162	152	10
Motor Gasoline Blending Components	0	67	-67	257	0	257
Finished Motor Gasoline	50,848	5,055	45,793	17,736	4,659	13,077
Leaded	260	0	260	284	406	-122
Unleaded	50,588	5,055	45,533	17,452	4,253	13,199
Finished Aviation Gasoline	187	0	187	165	30	135
Jet Fuel	11,975	309	11,666	4,346	850	3,496
Naphtha-Type	438	0	438	154	0	154
Kerosene-Type	11,537	309	11,228	4,192	850	3,342
Kerosene	279	25	254	25	37	-12
Distillate Fuel Oil	20,412	2,109	18,303	7,083	1,319	5,764
Residual Fuel Oil	800	0	800	0	357	-357
Petrochemical Feedstocks[a]	0	119	-119	89	9	80
Special Naphthas	327	2	325	56	0	56
Lubricants	523	177	346	296	158	138
Waxes	2	0	2	0	0	0
Asphalt and Road Oil	532	115	417	582	299	283
Miscellaneous Products	81	30	51	0	10	-10
Total	89,921	8,044	81,877	101,941	13,390	88,551

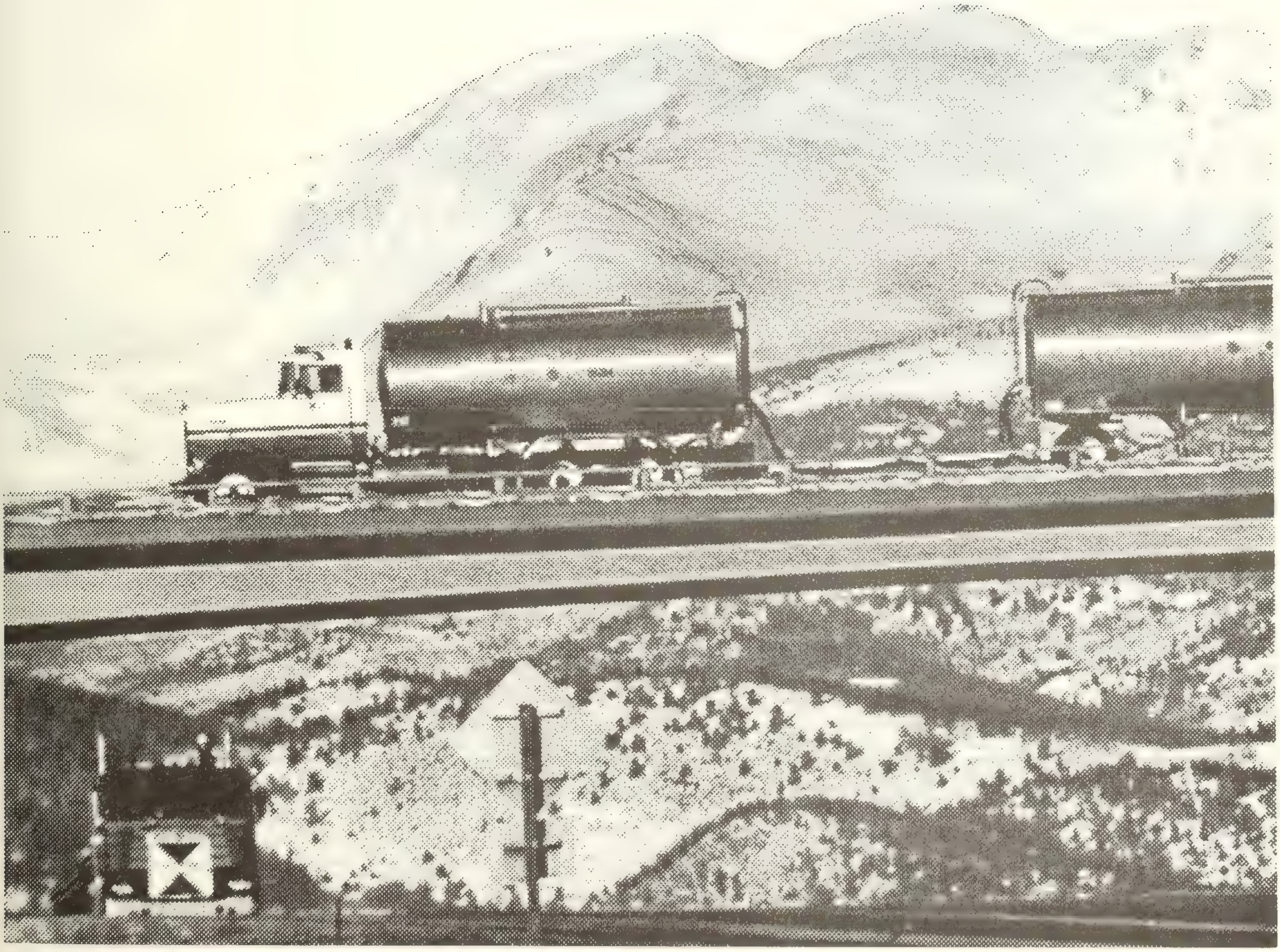
Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	14,008	64,113	-50,105	482	4,665	-4,183	0	10,537	-10,537
Petroleum Products	6,623	113,184	-106,561	1,891	4,294	-2,403	3,361	0	3,361
Pentanes Plus	323	840	-517	1	283	-282	0	0	0
Liquefied Petroleum Gases	3,153	5,388	-2,235	118	1,599	-1,481	0	0	0
Ethane/Ethylene	1,523	155	1,368	0	580	-580	0	0	0
Propane/Propylene	1,005	4,298	-3,293	116	542	-426	0	0	0
Normal Butane/Butylene	407	278	129	2	301	-299	0	0	0
Isobutane	218	657	-439	0	176	-176	0	0	0
Unfinished Oils	152	475	-323	0	0	0	100	0	100
Motor Gasoline Blending Components	47	237	-190	0	0	0	0	0	0
Finished Motor Gasoline	1,607	61,789	-60,182	957	1,277	-320	1,632	0	1,632
Leaded	87	265	-178	59	372	-313	353	0	353
Unleaded	1,520	61,524	-60,004	898	905	-7	1,279	0	1,279
Finished Aviation Gasoline	0	352	-352	30	0	30	0	0	0
Jet Fuel	99	16,224	-16,125	550	193	357	606	0	606
Naphtha-Type	0	776	-776	0	135	-135	319	0	319
Kerosene-Type	99	15,448	-15,349	550	58	492	287	0	287
Kerosene	0	242	-242	0	0	0	0	0	0
Distillate Fuel Oil	451	24,765	-24,314	235	942	-707	954	0	954
Residual Fuel Oil	340	783	-443	0	0	0	0	0	0
Petrochemical Feedstocks[a]	39	0	39	0	0	0	0	0	0
Special Naphthas	2	383	-381	0	0	0	0	0	0
Lubricants	239	792	-553	0	0	0	69	0	69
Waxes	0	2	-2	0	0	0	0	0	0
Asphalt and Road Oil	131	831	-700	0	0	0	0	0	0
Miscellaneous Products	40	81	-41	0	0	0	0	0	0
Total	20,631	177,297	-156,666	2,373	8,959	-6,586	3,361	10,537	-7,176

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

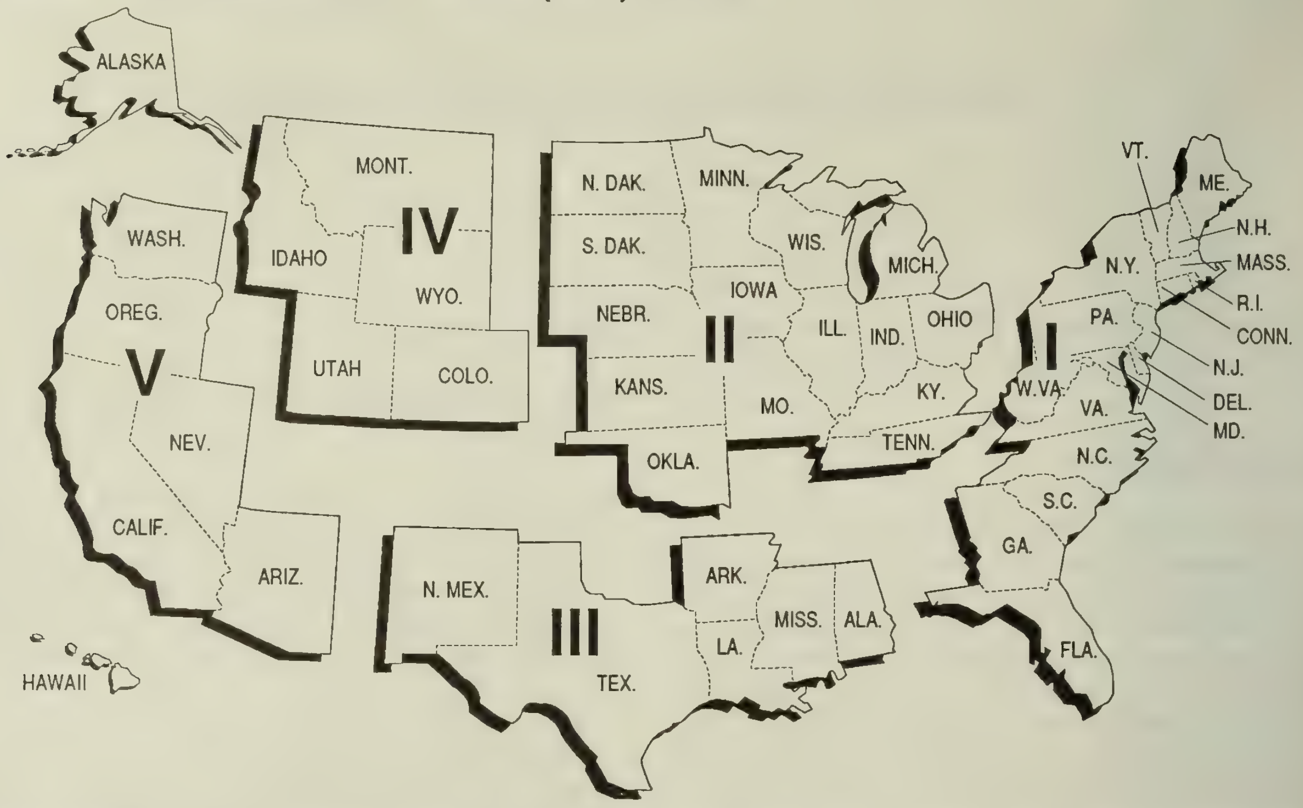
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

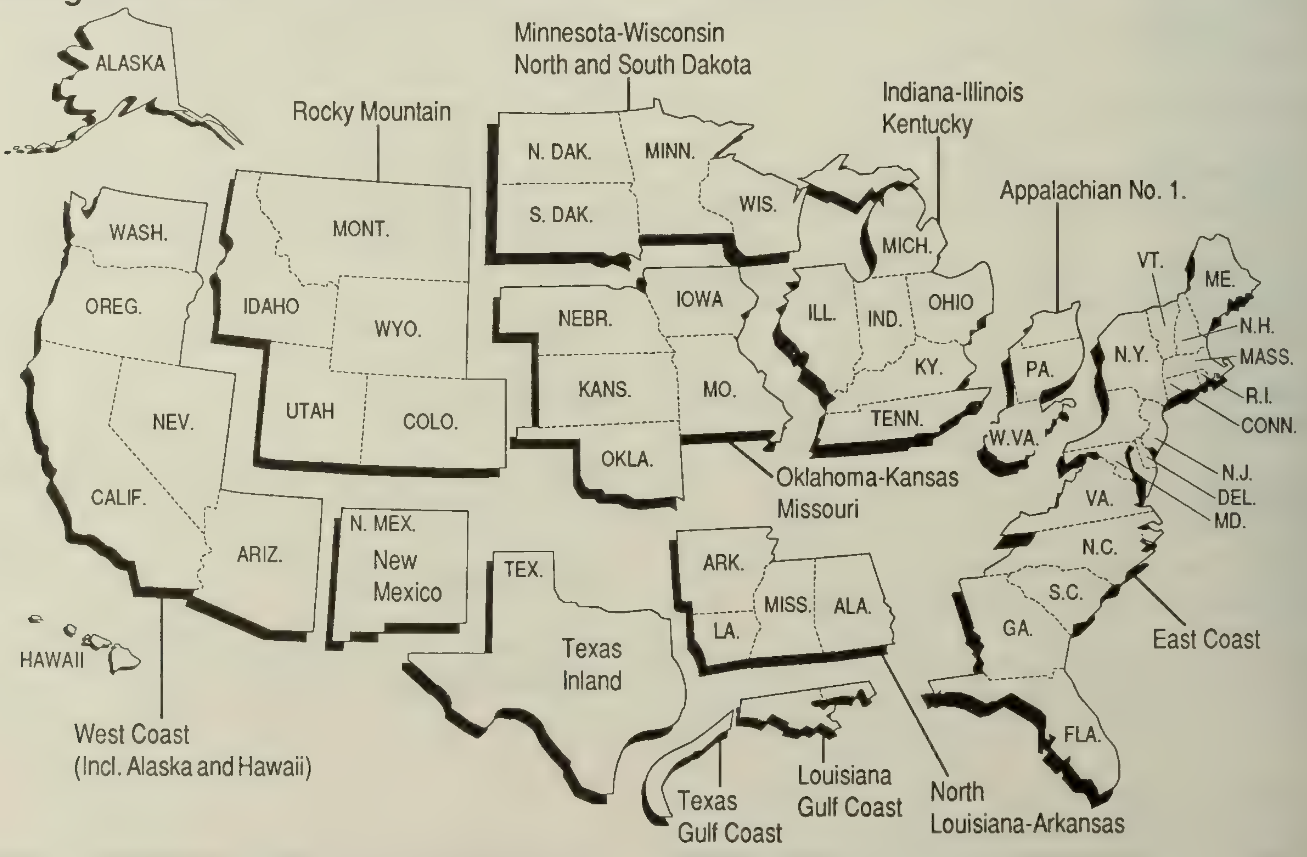
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

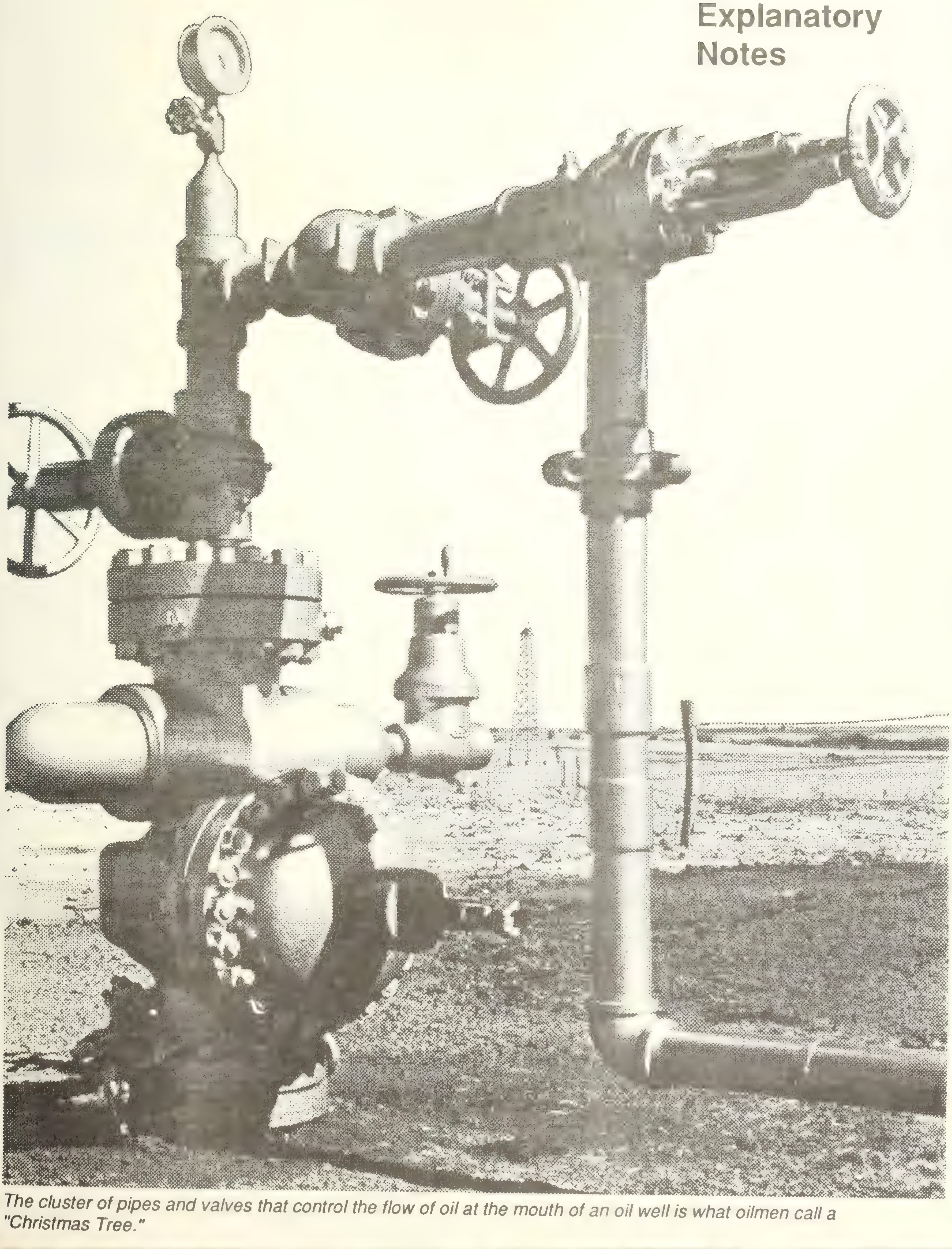


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Appendix B

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*
EIA-820	*Annual Refinery Report*

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities which appear in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report.*

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the *PSM.* They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is found in the feature article in the *PSM* entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the July 1989 issue and dealt with the years 1984-1988. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report*, collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume 1.

Note 3. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort by the Energy Information Administration (EIA) to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possessions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or

petroleum products transported by tanker or barge between Petroleum Administration for Defense (PAD) Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report*.

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands, and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of the processing or storage facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

Survey forms for the MPSRS can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as

provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy regulations implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The information contained on Form EIA-814 are not considered confidential and historically has not been treated as such.

Note 4. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems — the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e.,stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figure, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stocks figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday)

and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables are:

- **Table S1. Crude Oil and Petroleum Products Overview**

  The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

  Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

  Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

  Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

  Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

  Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

  Unless otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

  Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

  Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure		Figure Source
Figure S1.	Petroleum Overview	Table S1
Figure S2.	Petroleum Products Supplied	Table S1
Figure S3.	Crude Oil Supply & Disposition	Table S2
Figure S4.	Crude Oil Ending Stocks	Table S2
Figure S5.	Finished Motor Gasoline Supply & Disposition	Table S4
Figure S6.	Motor Gasoline Ending Stocks	Table S4
Figure S7.	Distillate Fuel Oil Supply & Disposition	Table S5
Figure S8.	Distillate Fuel Oil Ending Stocks	Table S5
Figure S9.	Residual Fuel Oil Supply & Disposition	Table S6
Figure S10.	Residual Fuel Oil Ending Stocks	Table S6
Figure S11.	Liquefied Petroleum Gases Supply & Disposition	Table S7
Figure S12.	Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (PAD) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The table, form or other source for items of each table are described below. Column and row headings are defined in the Glossary.

- **Table 1** - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).

  - Lines (1) through (3): Crude Oil Field Production for Alaska and Total U.S. appear as labeled in Table 16. Lower 48 states are calculated by subtracting Alaska crude oil production from Total U. S. crude oil production.

  - Line (4): Crude Oil Imports, excluding Strategic Petroleum Reserve (SPR), are reported on Form EIA-814.

  - Line (5): SPR Imports are reported on Form EIA-814.

- Line (6): Exports of crude oil taken from Census tapes and data are reported on Form EIA-810 for U.S. territories.
- Line (7): Sum of lines (4) through (6).
- Line (8): The difference between the previous month and current month ending stocks held in the SPR.
- Line (9): The difference between the previous month and current month ending stocks (excluding SPR).
- Line (10): The sum of Crude Oil Product Supplied and Crude Losses as shown in Table 2.
- Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.
- Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.
- Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).
- Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.
- Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.
- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.
- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).
- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (19): The sum of unfinished oils and motor and aviation gasoline blending component imports reported on Form EIA-814.
- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.
- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.
- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.
- Line (23): Total Other Liquids equals the sum of lines (18) through (22).
- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).
- Line (25): Gross Imports of Refined Products equals imports of LPGs plus imports of finished petroleum products as shown in Table 2.
- Line (26): Exports of Refined Products equals exports of LPGs plus exports of finished petroleum products as shown in Table 2.
- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).
- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).
- Line (29): Refined Products Stock Change equals the sum of stock change for LPGs and finished petroleum products in Table 2.
- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.
- Lines (31) through (34): Equal the respective products supplied of same in Table 2.
- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.
- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.

- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.

- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.

- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.

- Line (44): Other Products stocks equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on data received from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 8 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report*. Refinery production of other hydrocarbons, hydrogen and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report*.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report*, as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report*, that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report*. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol are reported on Form EIA-810, *Monthly Refinery Report,* and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel . These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.

- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.

- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.

- **Tables 6 through 15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.

- **Table 16** - State government agencies. See Explanatory Note 8.

  Table 16 provides estimates for crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report.*

  Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report.*

- **Table 19** - Form EIA-810, *Monthly Refinery Report*.

Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*

- **Table 21** - Calculated from Tables 18 and 19.

  To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

  To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

  To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline), the production for each product listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*

- **Tables 35 through 38** - Census Export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*

- **Tables 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594) and Form EIA-810, *Monthly Refinery Report.*

  A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported on Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum products are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

  Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

  Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report.* Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*. After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.

- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.

- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is published in the *PSA*.

Note 9. Export Data Source

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the *Petroleum Supply Monthly* reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month

Date of Data Availability	Month of Production																	
	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90
	Reported State Data[c]																	
6-14-89	0																	
7-14-89	2048	0																
8-14-89	4565	1930	0															
9-14-89	6423	2748	1789	0														
10-14-89	7211	7008	4491	1939	0													
11-14-89	7663	7023	6825	4796	1974	0												
12-14-89	7703	7479	6876	6960	4639	1960	0											
1-14-90	7700	7508	7307	7380	6659	4426	1993	0										
2-14-90	7711	7515	7311	7400	7385	6640	4406	1990	0									
3-14-90	7770	7576	7370	7460	7445	7367	6975	4649	1927	0								
4-14-90	7811	7622	7428	7537	7542	7447	7532	6259	4575	1912	0							
5-14-90	7818	7626	7438	7544	7549	7456	7541	7308	6240	4598	1893	0						
6-14-90	7821	7629	7449	7549	7555	7461	7559	7305	7366	7274	4337	1977	0					
7-14-90	7822	7629	7450	7549	7555	7462	7568	7314	7382	7320	6820	4705	1841	0				
8-14-90	7823	7638	7452	7549	7556	7464	7572	7315	7393	7338	7256	6742	4444	1672	0			
9-14-90	7823	7638	7452	7549	7556	7464	7572	7316	7394	7339	7263	6831	6701	3919	1757	0		
10-14-90	7823	7638	7452	7549	7556	7464	7572	7316	7415	7370	7292	7264	6753	6530	4291	1758	0	0
	Producing States Without Reported Monthly Production[d]																	
10-14-90	0	0	0	0	0	0	0	0	4	4	4	4	6	7	19	29	33	33

	Month of Production																	
	5-89	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90
	Production Estimate																	
Original[e]	7843	7726	7622	7662	7641	7644	7601	7565	7512	7399	7410	7310	7241	6981	7130	6971	6991	7261
Interim[f]	7807	7660	7474	7589	7563	7462	7564	7372	7522	7465	7394	7331	7259	7076	7144	7215		
Form EIA-182																		
Initial	7636	7544	7351	7497	7442	7378	7473	7243	7479	7458	7356	7316	7220	7013	7116	7274		
Revised	7686	7541	7351	7499	7448	7389	7497	7247	7481	7440	7368	7317	7223	7022	7112			
Final[g]	7816	7624	7444	7544	7548	7453	7536	7337										

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1989 (annual average of 96 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan is counted as having monthly reported data in 1989 after its annual report was received. These data are first reported as of 3-14-90. New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1989 after their annual reports were received. These data were first reported as of 4-14-90.

[e] Original estimates were made on the first of each month. The original estimates for August and September 1990 were revised on September 19, 1990 to reflect updated estimates of Alaskan production. The revised original estimates are 7150 and 7041 thousand barrels per day for August and September 1990, respectively. These revisions appear in the summary statistics tables of this publication.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1989, DOE/EIA 0340(89)/2.

Note 10. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) monitors the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, a comparison of the data collected on the PSRS with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 11. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership. Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 -1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B2 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement.*

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate fuel oil, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of finished motor gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the Energy Information Administration (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

Table B4. Product Basis vs. Component Basis Reporting

1979-1983 Product Basis	1984 Component Basis: Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures			•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *Petroleum Supply Monthly* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are the following:

- Tables 6 through 10, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products".
    - Effective January 1985, crude oil imports and unfinished oil imports in Tables 4 through 8 were reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
    - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
    - A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
    - The crude oil line includes movements by pipeline as well as by tanker and barge.

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814)	—	—	—	—	100
Plant Condensate (EIA-814)	—	—	—	—	100
Ethane (IM-145)	100	—	—	—	—
Propane (IM-145)	—	100	—	—	—
Butane (IM-145)	—	—	65	35	—
Butane-Propane Mixtures (IM-145)	—	40	35	20	5
Ethane-Propane Mixtures (IM-145)	60	40	—	—	—
Export Product					
Ethane (All PAD Districts)	100	—	—	—	—
Propane (All PAD Districts)	—	100	—	—	—
Butane (All PAD Districts)	—	—	100	—	—
Mixed Streams					
PAD Districts I, IV, V	—	40	60	—	—
PAD District II	30	25	15	15	15
PAD District III	—	80	20	—	—

Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSA* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
  - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District."
  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Table 18 and 19, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.

- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affected *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSA* statistics. The principal differences in the *PSA* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989 and subsequently reflected in the *Petroleum Supply Annual.*

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*

Table B6. Impact of New Respondents to December 1985 PSM Data

	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	—	—	2,314	318,695

[a] Stocks as of December 31, 1985.

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene)were added to Form EIA-810, *Monthly Refinery Report.*

- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*

- Bonded imports of jet fuel and fuel oils and imports of LPGs previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*

- Exports of butane/propane and ethane/propane mixtures were split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.

- The reporting of products other than Natural Gas Liquids (NGLs) by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

- Fractionators were required to report only end-of-month stocks of NGLs on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments were being made to refinery inputs and product supplied of NGLs and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment was made to refinery input in all Petroleum Administration for Defense (PAD) Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year-to-date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."

    - Stocks at natural gas processing plants by Refining Districts previously published on Table 24 was included with net production of petroleum products at natural gas plants.

    - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."

    - Net production of olefins (ethylene, propylene, and butylene) was added.

Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

  - Net production of naphthenic and paraffinic lubricants was added.

  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."

  - Stocks at refineries by Refining District were added from the old stock table (Table 24).

  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."

  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.

  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination."

  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District."

  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.

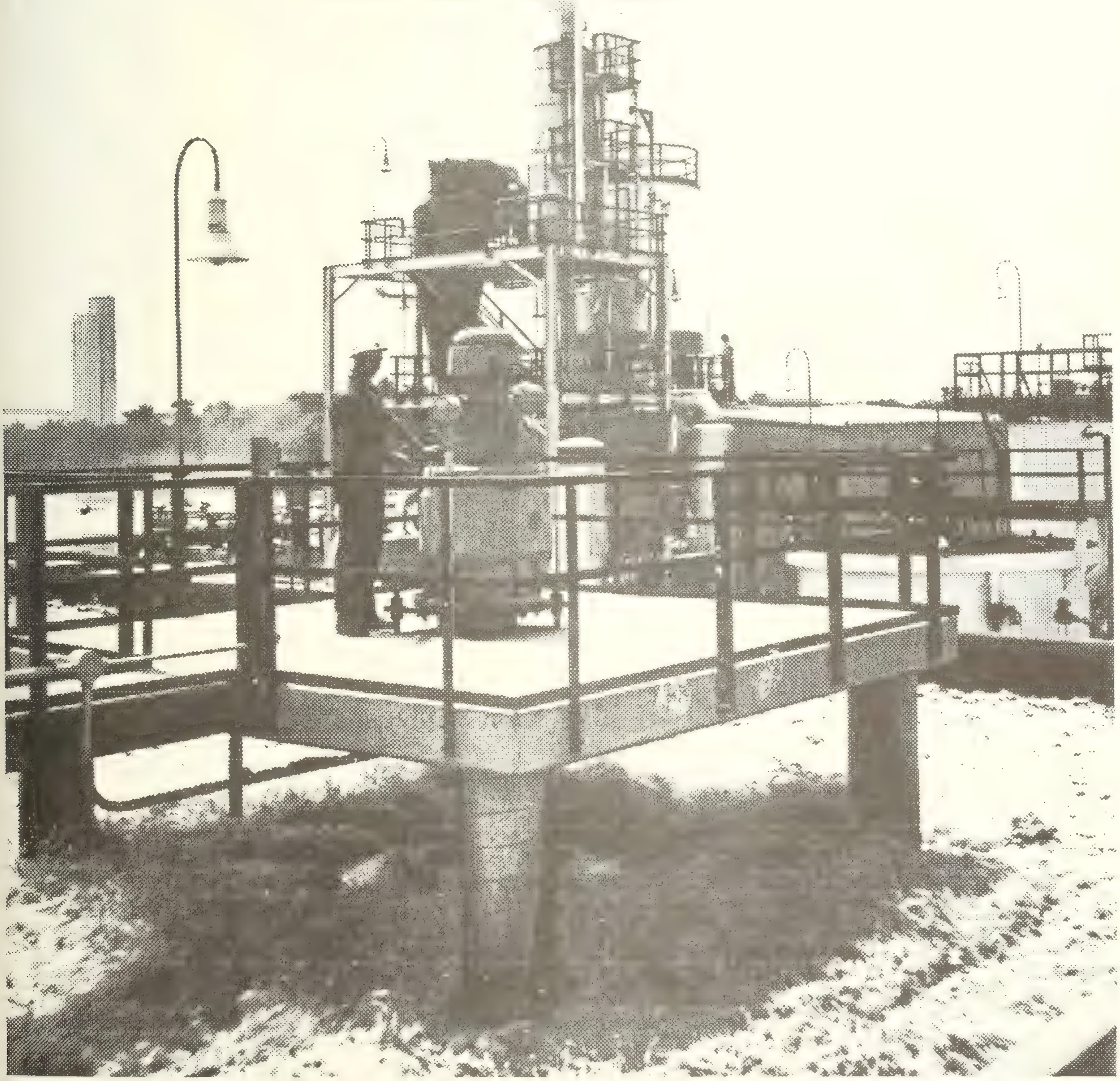
  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

Appendix C

Impact of Resubmissions on Major Series, 1990

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Table C1. Impact of Resubmissions on Major Series, 1990
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs	**14,614**	**15**	**14,484**	**2**	**13,868**	**5**	**14,112**	**4**	**14,136**	**8**	**14,815**	**1**	**6**
Crude Oil	13,499	-2	13,494	-1	12,876	4	13,051	4	13,389	(s)	13,690	0	1
Pentanes Plus	165	1	176	2	171	1	179	0	179	0	173	0	1
LPGs	416	-3	346	-2	205	(s)	200	(s)	216	0	220	0	-1
Ethane/Ethylene	0	0	(s)	0	(s)	0	1	0	(s)	0	(s)	0	0
Propane/Propylene	7	0	9	0	8	0	6	0	8	0	9	0	0
Normal Butane/Butylene	248	-2	183	-1	68	(s)	53	(s)	53	0	54	0	-1
Isobutane	161	-1	154	-1	129	(s)	141	(s)	154	0	158	0	(s)
Other Hydrocarbons	68	5	66	4	65	0	74	0	75	(s)	71	0	2
Unfinished Oils	534	26	513	(s)	481	(s)	510	1	338	8	599	1	6
Motor Gas. Blend. Comp	-68	-11	-107	-1	69	(s)	98	(s)	-60	(s)	61	(s)	-2
Aviation Gas. Blend. Comp	1	0	-3	0	1	0	1	0	-1	0	-1	0	0
Production	**16,868**	**33**	**16,830**	**11**	**16,116**	**19**	**16,310**	**17**	**16,343**	**10**	**16,994**	**20**	**18**
Pentanes Plus	288	9	304	7	299	5	296	3	306	3	307	2	5
LPGs	1,700	-12	1,784	-33	1,760	5	1,738	10	1,760	4	1,722	2	-4
Ethane/Ethylene	462	5	465	6	454	3	453	5	448	(s)	434	(s)	3
Propane/Propylene	874	9	914	6	880	0	862	1	848	1	836	(s)	3
Normal Butane/Butylene	228	-28	230	-46	256	1	258	3	291	2	283	1	-11
Isobutane	136	2	176	1	169	1	165	1	173	1	169	1	1
Other Hydrocarbons	66	-10	69	-4	72	5	72	0	80	-1	73	(s)	-2
Finished Motor Gasoline	6,889	-28	6,978	-1	6,612	1	6,764	4	6,599	-1	7,084	(s)	-4
Leaded	411	-8	396	-1	389	(s)	393	2	400	(s)	380	(s)	-1
Unleaded	6,477	-20	6,582	(s)	6,223	1	6,371	2	6,199	-1	6,704	(s)	-3
Finished Aviation Gasoline	16	0	22	0	20	0	22	0	28	0	29	0	0
Jet Fuel	1,486	-1	1,498	-1	1,425	0	1,335	-1	1,365	-2	1,355	0	-1
Naphtha-Type Jet	187	-1	200	-1	201	0	178	(s)	198	0	175	0	(s)
Kerosene-Type Jet	1,299	(s)	1,298	0	1,224	0	1,156	(s)	1,167	-2	1,181	0	(s)
Kerosene	134	0	96	0	70	0	63	0	50	0	29	0	0
Distillate Fuel Oil	3,136	-7	2,753	(s)	2,655	1	2,802	(s)	2,873	(s)	2,995	0	-1
Residual Fuel Oil	1,129	33	1,060	0	974	1	880	1	877	6	926	0	7
Naphtha Pet. Feedstock	109	21	133	0	143	0	137	0	142	0	109	17	6
Other Oils Pet. Feedstock	200	25	264	42	268	0	303	0	287	0	246	0	11
Special Naphthas	54	-1	54	0	52	0	56	(s)	59	0	60	0	(s)
Lubricants	156	(s)	166	0	162	0	173	0	165	0	155	0	(s)
Waxes	14	0	19	(s)	17	0	15	0	15	0	16	0	0
Petroleum Coke	538	2	561	0	537	0	546	(s)	541	(s)	548	0	(s)
Asphalt and Road Oil	251	0	326	0	345	0	382	0	480	0	571	0	0
Still Gas	642	2	676	0	649	0	670	0	650	1	700	0	(s)
Miscellaneous Products	58	(s)	67	1	55	(s)	57	0	66	(s)	68	(s)	(s)
Imports	**9,147**	**46**	**8,306**	**77**	**7,925**	**23**	**7,758**	**74**	**8,738**	**57**	**8,690**	**32**	**51**
Crude Oil	6,206	6	5,858	30	6,125	-8	5,740	59	6,438	-5	6,413	8	15
Pentanes Plus	18	0	11	0	4	0	4	0	13	0	4	0	0
LPGs	245	15	223	11	152	2	148	2	189	1	201	(s)	5
Ethane/Ethylene	8	0	0	2	6	0	5	0	5	0	5	0	(s)
Propane/Propylene	172	13	147	5	117	1	115	(s)	135	(s)	100	0	3
Normal Butane/Butylene	53	(s)	65	-7	22	1	19	1	37	1	69	(s)	-1
Isobutane	12	2	11	12	7	1	9	(s)	13	0	27	0	2
Other Hydrocarbons	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils	441	0	401	0	369	17	350	7	430	-7	384	58	12
Motor Gas.Blend.Comp	71	0	61	0	71	0	49	0	74	(s)	131	0	(s)
Aviation Gas. Blend. Comp	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	417	(s)	407	0	265	0	327	0	535	49	361	15	11
Leaded	1	0	(s)	0	(s)	0	0	0	2	0	3	0	0
Unleaded	416	(s)	407	0	265	0	327	0	533	49	358	15	11
Finished Aviation Gasoline	0	0	0	0	(s)	0	(s)	0	(s)	0	(s)	0	0
Jet Fuel	157	6	147	12	109	11	103	0	113	6	125	1	6
Naphtha-Type Jet	1	0	1	0	2	0	1	0	2	0	2	0	0
Kerosene-Type Jet	155	6	145	12	108	11	102	0	111	6	122	1	6
Kerosene	24	0	6	0	1	0	6	0	(s)	0	8	0	0
Distillate Fuel Oil	501	4	357	(s)	280	(s)	308	(s)	207	2	257	0	1
Residual Fuel Oil	809	16	640	23	334	1	555	4	507	2	536	-51	-1
Naphtha Pet. Feedstock	139	-71	118	-62	111	-49	47	0	59	0	39	0	-30
Other Oils Pet. Feedstock	74	67	18	62	65	49	79	0	111	0	166	0	30
Special Naphthas	5	3	14	1	3	(s)	10	1	18	-2	15	0	1
Lubricants	12	0	14	0	11	0	7	0	3	13	7	0	2
Waxes	1	0	2	0	1	0	1	0	1	0	1	0	0
Petroleum Coke	1	0	5	0	1	0	2	0	1	0	1	0	0
Asphalt and Road Oil	25	0	21	(s)	19	(s)	20	0	35	(s)	41	1	(s)
Miscellaneous Products	2	(s)	2	0	2	(s)	1	(s)	3	0	1	(s)	(s)

(s) = Less than 500 barrels per day.

Note: • Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

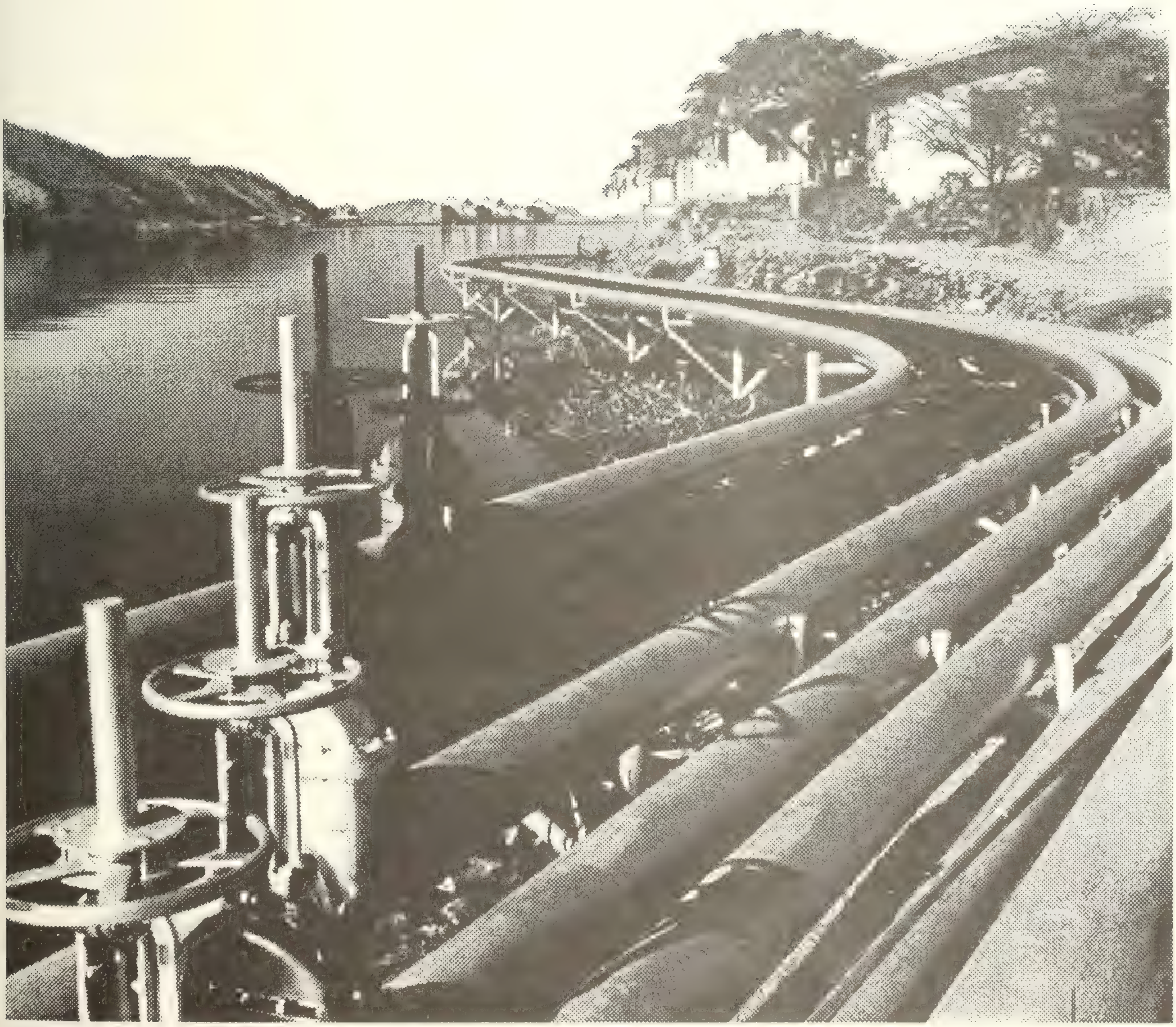
Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (Thousand Barrels)....	**1,051,022**	**-1,502**	**1,058,003**	**-3,862**	**1,061,200**	**-1,462**	**1,056,496**	**106**	**1,084,920**	**1,071**	**1,097,103**	**725**	**-821**
Crude Oil (excl. SPR)	352,267	-3,117	343,081	-3,484	373,655	-2,802	369,705	854	382,480	201	384,237	98	-1,375
Pentanes Plus......................	7,968	127	7,239	10	7,334	-76	7,091	23	7,279	4	7,757	0	15
LPGs....................................	76,107	486	76,675	651	77,962	1,584	82,047	102	90,706	145	104,249	147	519
Ethane/Ethylene................	23,585	147	24,511	479	24,158	-296	24,219	4	22,899	1	22,378	0	56
Propane/Propylene............	32,979	192	32,171	804	31,103	1,704	31,705	73	35,584	138	43,990	146	510
Normal Butane/Butylene.....	12,571	106	12,142	-218	14,739	199	17,857	-2	22,867	5	27,893	0	15
Isobutane...........................	6,972	41	7,851	-414	7,962	-23	8,266	27	9,356	1	9,988	1	-61
Other Hydrocarbons	644	154	749	167	977	0	907	0	1,037	9	1,104	0	55
Unfinished Oils.....................	103,511	-89	106,468	-101	109,780	-5	108,729	-12	116,582	44	117,515	1	-27
Motor Gas. Blend. Comp......	40,350	-170	44,325	-214	42,133	0	39,126	-45	39,575	28	37,554	0	-67
Aviation Gas. Blend. Comp...	141	0	180	0	145	0	125	0	159	0	178	0	0
Finished Motor Gasoline.......	195,634	1,294	201,341	6	186,056	-203	184,486	-72	178,416	222	175,840	-16	205
Leaded.............................	17,828	-36	15,444	-146	13,559	-181	12,603	-20	11,906	-23	10,560	-20	-71
Unleaded...........................	177,806	1,330	185,897	152	172,497	-22	171,883	-52	166,510	245	165,280	4	276
Finished Aviation Gasoline ...	1,976	4	1,947	-1	1,843	-39	1,830	-30	1,884	0	1,833	0	-11
Jet Fuel	42,818	192	46,389	-3	48,938	421	46,844	-272	46,832	-60	47,255	3	47
Naphtha-Type Jet..............	6,381	4	6,336	1	7,082	-34	6,328	-29	6,853	0	6,969	0	-10
Kerosene-Type Jet............	36,437	188	40,053	-4	41,856	455	40,516	-243	39,979	-60	40,286	3	57
Kerosene	6,495	-60	5,693	-16	5,129	-16	5,194	0	5,501	0	5,071	0	-15
Distillate Fuel Oil..................	117,949	-174	112,224	-464	99,684	-768	99,459	-258	102,828	335	109,392	466	-144
Residual Fuel Oil..................	49,729	484	51,479	-261	46,190	117	48,993	-180	49,641	55	46,766	3	36
Naphtha Pet. Feedstock	2,106	-5	2,292	-5	2,322	0	2,220	0	1,993	0	1,849	3	-1
Other Oils Pet. Feedstock.....	1,935	0	2,848	0	2,614	0	2,022	0	2,670	0	2,589	0	0
Special Naphthas.................	2,691	-94	2,844	-96	2,949	-4	2,699	-1	2,724	0	2,697	0	-33
Lubricants	13,597	-12	13,011	-19	12,264	2	12,353	0	12,256	65	12,351	0	8
Waxes..................................	953	-2	1,032	-1	1,044	0	955	0	941	0	901	0	-1
Petroleum Coke	9,228	0	9,444	0	8,954	0	9,423	1	9,989	0	8,603	0	(s)
Asphalt and Road Oil...........	22,215	-40	25,957	103	28,519	303	29,873	-30	29,091	0	26,977	0	56
Miscellaneous Products........	2,708	-480	2,785	-134	2,708	24	2,415	26	2,336	23	2,385	20	-87
Product Supplied...................	**16,968**	**13**	**17,024**	**131**	**17,083**	**-12**	**16,666**	**101**	**16,843**	**13**	**17,112**	**51**	**49**
Crude Oil..............................	40	0	36	0	24	0	24	0	30	0	29	0	0
Pentanes Plus......................	156	4	161	9	128	7	128	(s)	133	3	120	2	4
LPGs....................................	1,660	-10	1,599	-26	1,620	-23	1,525	61	1,417	4	1,223	2	1
Ethane/Ethylene................	462	(s)	431	-4	471	28	455	-5	495	(s)	456	(s)	3
Propane/Propylene............	1,012	16	1,048	-12	993	-28	935	56	825	-1	626	(s)	5
Normal Butane/Butylene.....	163	-30	117	-40	113	-12	112	11	101	2	123	2	-11
Isobutane...........................	22	4	2	30	44	-11	23	(s)	-4	2	17	1	4
Other Hydrocarbons	0	-10	0	-4	0	5	0	0	0	-1	0	(s)	-2
Unfinished Oils.....................	-7	-23	-218	1	-219	13	-125	7	-161	-17	-247	58	7
Motor Gas. Blend. Comp......	14	16	26	2	73	-6	51	1	119	-3	138	1	2
Aviation Gas. Blend. Comp...	0	0	2	0	(s)	0	0	0	0	0	0	0	0
Finished Motor Gasoline.......	6,675	-70	7,129	45	7,325	8	7,116	(s)	7,304	39	7,478	23	7
Leaded.............................	404	-7	472	3	443	1	420	-3	421	(s)	420	(s)	-1
Unleaded...........................	6,272	-63	6,657	42	6,881	7	6,696	3	6,884	39	7,059	23	8
Finished Aviation Gasoline ...	19	(s)	23	(s)	24	1	23	(s)	27	-1	31	0	0
Jet Fuel	1,551	-1	1,468	18	1,423	-3	1,488	22	1,470	-3	1,456	-2	5
Naphtha-Type Jet..............	182	-1	203	-1	165	1	196	-1	182	-1	170	0	(s)
Kerosene-Type Jet............	1,369	(s)	1,265	19	1,257	-4	1,292	23	1,288	-2	1,286	-2	8
Kerosene	113	2	130	-2	87	0	66	-1	41	0	50	0	(s)
Distillate Fuel Oil..................	3,177	3	3,250	10	3,265	11	3,059	-17	2,897	-17	2,949	-4	-2
Residual Fuel Oil..................	1,561	33	1,424	49	1,202	-10	1,142	15	1,222	(s)	1,350	-49	6
Naphtha Pet. Feedstock	238	-50	237	-62	250	-49	184	0	201	0	148	17	-24
Other Oils Pet. Feedstock.....	257	92	226	104	319	49	371	0	350	0	396	0	41
Special Naphthas.................	62	5	46	1	43	-3	73	1	71	-2	72	0	(s)
Lubricants	160	1	185	(s)	180	-1	147	(s)	153	11	138	2	2
Waxes..................................	16	(s)	17	0	15	(s)	17	0	16	0	15	0	0
Petroleum Coke	346	2	332	0	336	0	291	(s)	295	(s)	317	0	(s)
Asphalt and Road Oil...........	223	1	211	-5	280	-6	351	11	540	-1	680	1	(s)
Still Gas................................	642	2	676	0	649	0	670	0	650	1	700	0	(s)
Miscellaneous Products........	64	16	66	-12	58	-5	66	(s)	68	(s)	67	(s)	(s)

(s) = Less than 500 barrels per day.

Note: • Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr.60^\circ F/60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 F to 750 F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and alcohol.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C6H6), present to a minor degree in most crude oils. Some important

products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 F at the 10-percent recovery point and 550 F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 F and 640 F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on

the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C_2H_6). It is a colorless paraffinic gas that boils at a temperature of -127.48 F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

> 1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.
>
> 2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit to be reprocessed are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 F to 1000 F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico,

the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, ($C6H14$). It is a colorless liquid that boils at a temperature of 156.2 F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane (C4), an alkylation process feedstock, and normal pentane and hexane into isopentane (C5) and isohexane (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 F at the 10-percent recovery point, a final boiling point of 572 F, and a minimum flash point of 100 F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 F at the 10-percent recovery point and a final maximum boiling point of 572 F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 F to 650 F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> ***Paraffinic.*** Includes all grades of bright stock and neutrals with a Viscosity Index>75.
>
> ***Naphthenic.*** Includes all lubricating oil base stocks with a Viscosity Index<75
>
> *Note:* The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> ***Exceptions:*** Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted pariffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158 F at the 10-percent recovery point and from 365 to 374 F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded

gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogens, and alcohol.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 F.

Naphtha Less Than 401 F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 F at the 20-percent recovery point and 470 F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ramjet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, ($C5H12$), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle

capacity and is measured in barrels per calendar day or barrels per stream day.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, oxygenates, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401 F. See Petrochemical Feedstocks.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401 F" and "Other Oils Equal To or Greater Than 401 F."

> ***Naphtha Less Than 401 F.*** A naphtha with a boiling range of less than 401 F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401 F.*** Oils with a boiling range equal to or greater than 401 F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus

imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, (C3H8). It is a colorless paraffinic gas that boils at a temperature of -43.67 F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids, other hydrocarbons and alcohol, and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone".

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, (C6H5CH3), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

> ***Microcrystalline Wax.*** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 F (D1321)-60 maximum. Viscosity at 210 F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.
>
> ***Crystalline-Fully Refined Wax.*** A light-colored paraffin wax having the following characteristics: Viscosity at 210 F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.
>
> ***Crystalline-Other Wax.*** A paraffin wax having the following characteristics: Viscosity at 210 F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, (C6H4Y(CH3)2), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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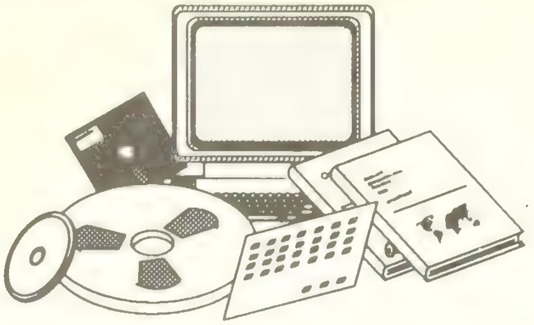

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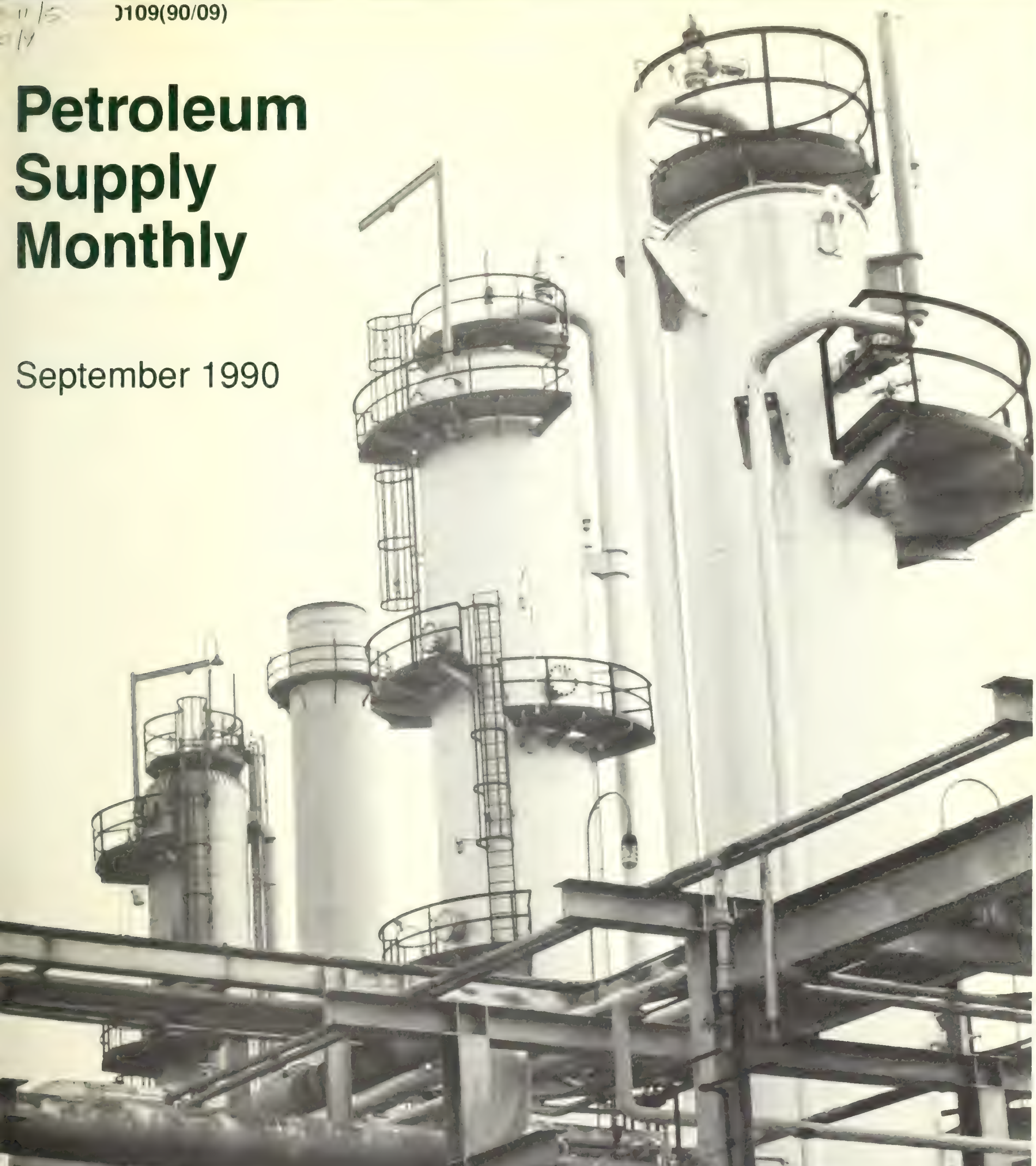
September 1990



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September 1990

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Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of three publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other two publications are the *Weekly Petroleum Status Report* (WPSR) and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in Primary Supply. Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections (1) the Summary Statistics and (2) the Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System (WPSRS); statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Explanatory Notes, located at the end of this publication, present information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from an annual refinery survey are published in the *PSA*. During the processing year, a summary of the impact of resubmissions (corrections) on major series is provided in Appendix C. The *PSA* is published approximately five months after the end of the report year.

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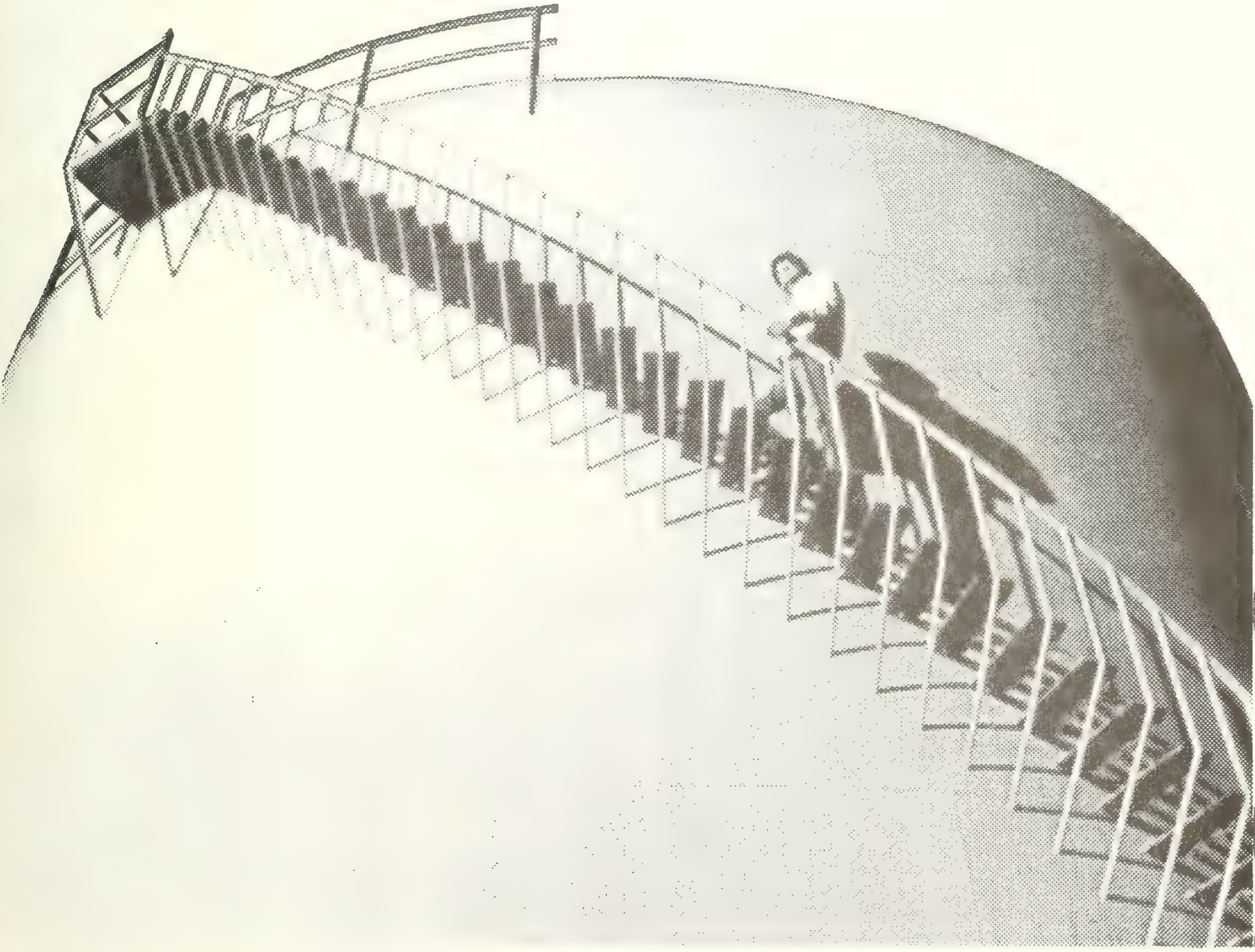
Feature Article



A refinery worker makes his way around a towering storage tank to check the tank level.

Comparisons of Independent Statistics on Petroleum Supply

by Robert G. Harper, III

Introduction

The Petroleum Supply Division (PSD) of the Energy Information Administration (EIA) collects and publishes information on petroleum supply and disposition in the United States. The information is collected through a series of surveys that make up the Petroleum Supply Reporting System (PSRS). The PSRS data are published in the *Weekly Petroleum Status Report (WPSR)*, *Petroleum Supply Monthly (PSM)*, and *Petroleum Supply Annual (PSA)*.

This article compares final petroleum data published in the *PSA* with similar petroleum data obtained from other sources. Data comparisons are presented for 1980 through 1989, for the following series: crude oil production, crude oil imports, motor gasoline supplied, distillate fuel oil supplied, and residual fuel oil supplied.

Crude Oil Production

Crude oil production statistics (including lease condensate) from the American Petroleum Institute (API), the *Oil and Gas Journal (OGJ)* and EIA's Reserves and Natural Gas Division (RNGD) are compared with statistics from the *Petroleum Supply Annual (PSA)* (Table FE1). Data on crude oil production published in the *PSA* are based on data collected by State government agencies as well as the Minerals Management Service of the U.S. Department of the Interior which collects data on crude oil produced on federally-owned offshore leases.

Production estimates from API are also based on data provided by State government agencies. From 1980 through 1989, API crude oil production statistics were within 0.6 percent of the *PSA* volumes for every year except 1984.

Crude oil production estimates developed by the *Oil and Gas Journal (OGJ)* are based on data obtained from State conservation agencies and on historical State production levels. In 1989, *OGJ* statistics were 2.0 percent higher than *PSA* statistics.

EIA's RNGD publishes the *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*. Those crude oil

Table FE1. A Comparison of Four Crude Oil Production Data Series, 1980-1989

	PSA	API		OGJ		RNGD	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1989	2,779	2,781	100.1	2,834	102.0	2,751	99.0
1988	2,979	2,967	99.6	3,013	101.1	2,973	99.8
1987	3,047	3,028	99.4	3,034	99.6	3,035	99.6
1986	3,168	3,182	100.4	3,195	100.9	3,142	99.2
1985	3,275	3,261	99.6	3,223	98.4	3,220	98.3
1984	3,250	3,197	98.4	3,173	97.6	3,216	99.0
1983	3,171	3,175	100.1	3,161	99.7	3,177	100.2
1982	3,157	3,164	100.2	3,156	100.0	3,107	98.4
1981	3,129	3,140	100.4	3,135	100.2	3,110	99.4
1980	3,146	3,160	100.4	3,147	100.0	3,134	99.6

Sources: •PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1989, Table 2; *Petroleum Statement, Annual*, DOE/EIA-0108, 1980, Table 6. •API: American Petroleum Institute, *Monthly Statistical Report*, 1980 through 1989. •OGJ: *Oil and Gas Journal*, 1980 through 1989. •RNGD: *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report*, DOE/EIA-0216, Crude Oil, 1980 through 1989, Table 6 ; Lease Condensate, 1980 through 1984, Table 16, 1985, Table 14, 1986 through 1989, Table 15.

production estimates are based on data from Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." Survey response is mandatory. In 1989 there were 4,178 respondents to the survey. The RNGD and *PSA* statistics have been in close agreement over the 10-year period (1980 through 1989) with an average difference of 0.8 percent. There was 1.0 percent difference between the RNGD data and the *PSA* data reported in 1989.

Crude Oil Imports

Data on crude oil imports are collected on survey Form EIA-814, "Monthly Imports Report." Survey respondents to the form include all companies that import crude oil or petroleum products into the United States and Puerto Rico. However, for comparison purposes, statistics on imports into Puerto Rico, the Virgin Islands, and other U.S. possessions are excluded from this analysis. Approximately 860 respondents report on the Form EIA-814. The *PSA* statistics are compared with API and the U.S. Bureau of the Census (Census) statistics for crude oil imports (Table FE2).

API data on crude oil imports are collected by a port-of-entry survey. Prior to 1985, API obtained data from reports on refinery receipts of crude oil submitted on a voluntary basis. Since the survey does not include crude oil imported by the Strategic Petroleum Reserve (SPR), data from the *PSA* on volumes of crude oil imported for the SPR were added to API data for comparison purposes (See data source box). In 1989, the adjusted API data were 1.2 percent higher than *PSA* statistics.

The Bureau of the Census obtains data on crude oil imports from the U.S. Customs Service (See data source box). In order to import crude oil or petroleum products into the United States either U.S. Customs Form CF-7501, "Entry Summary" or U.S. Customs Form CF-7505, "Warehouse Withdrawal for Consumption" must be filed. Those forms are processed, tabulated, and published in report FT-246, *Annual U.S. Imports for Consumption and General Imports*. Data on imports into Puerto Rico and other U.S. possessions are excluded from Census Bureau data. The Census data are adjusted for comparison purposes because their geographic coverage differs from that of the *PSA* data. In 1987, the adjusted Census data were 4.6 percent lower than the *PSA* annual average; that is the largest discrepancy in the 10-year period. During 1987, some companies were reporting lease condensate to Census (through Form CF-7501, "Entry Summary"). This volume of lease condensate was over 53 million barrels. Had these data been added to the crude oil data from the Census, the discrepancy between Census and *PSA* data would have been reduced to 1.5 percent, with the *PSA* volume higher than that of the Census. In 1989, the adjusted Census data were 0.7 percent higher than *PSA* statistics, while the API data were 1.2 percent higher than *PSA* statistics. Also in 1989, crude oil imports rose above 2 billion barrels for the first time since 1979.

Product Supplied

Product supplied, as reported in the *PSA*, is used to measure the volume of petroleum products available for domestic consumption. Those data are generated for each petroleum product by adding production, imports, and net stock changes,

Table FE2. A Comparison of Crude Oil Imports Into United States (Excluding U.S. Possessions) Data Series, 1980-1989

	PSA	API[a]		Census[b]	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1989	2,133	2,158	101.2	2,147	100.7
1988	1,869	1,861	99.6	1,888	101.0
1987	1,706	1,697	99.5	1,627	95.4
1986	1,525	1,501	98.4	1,540	101.0
1985	1,168	1,164	99.7	1,170	100.2
1984	1,254	1,303	103.9	1,208	96.3
1983	1,215	1,232	101.4	1,199	98.7
1982	1,273	1,275	100.2	1,300	102.1
1981	1,605	1,617	100.7	1,635	101.9
1980	1,926	1,917	99.5	1,942	100.8

[a] API statistics include PSA statistics for crude oil imported for the Strategic Petroleum Reserve.
[b] Census statistics are adjusted to reflect the geographic coverage and reporting period of the PSA.

Sources: • PSA: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1989, Table 2; *Petroleum Statement, Annual*, DOE/EIA-0108, 1980, Table 1. • API: American Petroleum Institute, *Monthly Statistical Report*. • Census: Bureau of the Census, FT-246, *Annual U.S. Imports for Consumption and General Imports: TSUSA*, IA-245X, *Annual U.S. Imports for Consumption and General Imports: TSUSA*, 1980 through 1985; IM-115 Data Tape, 1986 through 1989.

Table FE3. A Comparison of Motor Gasoline Supplied for Domestic Use Data Series, 1980-1989

	PSA	PMD		API		FHWA	
Year	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1989	2,675	2,873	107.4	2,683	100.3	2,722	101.8
1988	2,685	2,874	107.0	2,678	99.7	2,702	100.6
1987	2,630	2,760	104.9	2,611	99.3	2,677	101.8
1986	2,567	2,733	106.5	2,580	100.5	2,630	102.5
1985	2,493	2,691	107.9	2,476	99.3	2,553	102.4
1984	2,449	2,552	104.2	2,459	100.4	2,498	102.0
1983	2,417	2,495	103.2	2,420	100.1	2,434	100.7
1982	2,387	2,451	102.7	2,376	99.5	2,413	101.1
1981	2,404	2,431	101.1	2,379	99.0	2,446	101.7
1980	2,408	2,573	106.9	2,523	104.8	2,486	103.2

Sources: • PSA: Energy Information Administration (EIA), *Petroleum Supply Annual*, DOE/EIA-0340,1981 through 1989, Table 2; *Petroleum Statement, Annual* DOE/EIA-0108, 1980, Table 2. • PMD: Form EIA-25, "Prime Supplier's Monthly Report", 1980 through 1982; Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly*, DOE/EIA-0380, 1983 through 1984; *Petroleum Marketing Annual*, DOE/EIA-0487, 1985 through 1989. • API: American Petroleum Institute, *Monthly Statistical Report*, 1980 through 1989. • FHWA: Federal Highway Administration, *Highway Statistics*, 1980 through 1989, Tables MF-21A and MF-24.

and then subtracting refinery inputs and exports of the product. Product supplied is calculated for refineries, natural gas processing plants, blending plants, pipelines and bulk terminals.

Motor Gasoline Supplied

PSA statistics on motor gasoline supplied are compared with data from the EIA's Petroleum Marketing Division (PMD), the American Petroleum Institute (API), and the Federal Highway Administration (FHWA) (Table FE3). PMD Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," is used to monitor first sales into a State for consumption in that State. The respondent universe consists of refiners and gas plant operators, importers, and resellers or retailers. In 1989, the PMD volume of motor gasoline was approximately 7.4 percent above the *PSA* volume. That is the third time since 1985 that the difference has equaled 7.0 percent or more.

API statistics on motor gasoline delivered from primary storage are published in the *Monthly Statistical Report*. The API statistics are similar in concept to EIA's product supplied. The data represent production plus imports for motor gasoline (adjusted for net stock change) minus exports. Those statistics are based on a historical analysis of the industry and information provided on a voluntary basis by importers of record (licensed importers) and by operators of refineries, bulk terminals, and pipelines. For the ninth straight year, API and PSA statistics have remained within 1.0 percent of each other.

Data from FHWA on total gasoline usage are based on volumes of gasoline reported to State motor fuel tax agencies by wholesale distributors. The FHWA's publication "Highway Statistics" includes data on both highway and nonhighway use of gasoline, minus aviation gasoline. For 1980 through 1989, FHWA statistics were consistently higher than the *PSA* statistics. Although the difference between PSA and FHWA data narrowed from 2.5 percent in 1986 to 0.6 percent in 1988, in 1989, the difference increased to 1.8 percent.

Distillate Fuel Oil Supplied

Statistics for distillate fuel oil (including kerosene) supplied from the *Petroleum Supply Annual* are compared with EIA's PMD data on distillate fuel oil sales collected from survey Form EIA-782C and with API data on distillate fuel oil delivered from primary storage (Table FE4). In 1982, kerosene was discontinued as a separate category in API's *Monthly Statistical Report*. To adjust for this, kerosene volumes from the *PSA* were added to API data for comparison purposes.

Between 1980 and 1989, the PMD statistics for first sales of distillate fuel oil and kerosene sold into States for consumption were higher than the *PSA* statistics for every year except 1981. In 1989, there was a 6.7 percent difference between PMD and *PSA* data. For the last 10 years, the average annual difference between *PSA* and PMD data was 5.0 percent. API statistics on distillate fuel oil supplied generally have been comparable to *PSA* statistics, having stayed within 1.0 percent from 1982 through 1989.

Residual Fuel Oil Supplied

Product supplied data for residual fuel oil are compared with PMD data on "first sales" of residual fuel oil and API data on

Table FE4. A Comparison of Distillate Fuel Oil (Including Kerosene) Supplied Data Series, 1980-1989

Year	PSA	PMD		API[a]	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1989	1,183	1,262	106.7	1,172	99.1
1988	1,178	1,268	107.6	1,166	99.0
1987	1,121	1,159	103.4	1,122	100.1
1986	1,100	1,173	106.6	1,111	101.0
1985	1,088	1,160	106.6	1,090	100.2
1984	1,083	1,154	106.6	1,093	100.9
1983	1,028	1,045	101.7	1,027	99.9
1982	1,022	1,054	103.1	1,031	100.9
1981	1,079	1,067	98.9	1,109	102.8
1980	1,107	1,181	106.7	1,141	103.1

[a] API statistics include PSA statistics for kerosene.

Sources: •PSA: Energy Information Administration (EIA), *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1989, Table 2; *Petroleum Statement, Annual*, DOE/EIA-0108, 1980, Table 2, • PMD: EIA-25, "Prime Supplier's Monthly Report ," 1980 through 1982; Form EIA-782C,"Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly* , 1983 through 1984; *Petroleum Marketing Annual*, DOE/EIA-0487, 1985 through 1989. •API: American Petroleum Institute, *Monthly Statistical Report*, 1980 through 1989.

residual fuel oil delivered (Table FE5). The PMD statistics for residual fuel oil are historically lower than the *PSA* statistics. (A primary reason for the difference between PMD and *PSA* data may be the fact that all residual fuel oil imported by electric utilities or others for their own use may not be reported on Form EIA-782C because sellers who make such sales to electric utilities are not included in the survey frame.) The difference between *PSA* and PMD statistics has steadily decreased from a high of 14.3 percent in 1986, to 4.6 percent for 1989.

The API volumes of residual fuel oil supplied were close to *PSA* volumes over the 10-year period (1980 through 1989). From 1982 through 1987, the differences between the *PSA* and API data were within 2.0 percent. Although there was a 2.8 percent difference in 1988, the difference for 1989 fell to 1.8 percent.

Conclusion

Although the 1989 *PSA* statistics were in relative proximity with other sources of petroleum data, there are significant differences between data reported by *PSA* and data reported by PMD. There are many reasons why the data submitted by a company will differ. Chief among these reasons are the following:

Table FE5. A Comparison of Residual Fuel Oil Supplied for Domestic Use Data Series, 1980-1989

Year	PSA	PMD		API	
	Million Barrels	Million Barrels	Percent of PSA	Million Barrels	Percent of PSA
1989	500	477	95.4	491	98.2
1988	504	475	94.2	490	97.2
1987	462	422	91.3	467	101.1
1986	518	444	85.7	508	98.1
1985	439	411	93.6	433	98.6
1984	501	484	96.6	498	99.4
1983	519	510	98.3	525	101.2
1982	627	574	91.5	622	99.2
1981	762	723	94.9	780	102.4
1980	918	815	88.8	937	102.1

Sources: • PSA: Energy Information Administration (EIA), *Petroleum Supply Annual*, DOE/EIA-0340, 1981 through 1989, Table 2; *Petroleum Statement, Annual*, DOE/EIA-0108, 1980, Table 2. • PMD: Form EIA-25, "Prime Supplier's Monthly Report," 1980 through 1982; Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," *Petroleum Marketing Monthly*, 1983 through 1984; *Petroleum Marketing Annual*, DOE/EIA-0487, 1985 through 1989. •API: American Petroleum Institute, *Monthly Statistical Report*, 1980 through 1989.

Information on Data Sources Differences and Adjustments

American Petroleum Institute: In this article, API's annual statistics are totals of initial monthly values. The initial API published monthly estimate is derived from API sources, but later API publications reflect revisions using EIA data. *PSA* statistics on crude oil include imports for the Strategic Petroleum Reserve (SPR) while API statistics do not. Therefore, the following figures for SPR were added to the API figures: 20.3 million barrels in 1989, 18.8 million barrels in 1988, 26.5 million barrels in 1987, 17.6 million barrels in 1986, 43.1 million barrels in 1985, 72.0 million barrels in 1984, 85.3 million barrels in 1983, 60.2 million barrels in 1982, 93.3 million barrels in 1981, and 16.1 million barrels in 1980. The API publishes monthly estimates of motor gasoline, distillate fuel oil, and residual fuel oil delivered from primary storage in thousand barrels per day. In 1982, the API discontinued publishing kerosene as a separate category. PSA values for kerosene supplied (31 million barrels in 1989, 35 million barrels in 1988, 35 million barrels in 1987, 36 million barrels in 1986, 42 million barrels in 1985 and 1984, 46 million barrels in 1983 and 47 million barrels in 1982) were added to API distillate totals.

***Oil and Gas Journal*:** The *Oil and Gas Journal* publishes weekly averages of crude oil production in thousand barrels per day. Those averages are used to produce monthly totals as follows: the average for each week is used as a daily production estimate for each of the days the week covers. For each month, the production estimates for days covered by the month are summed. The totals are converted from thousand to million barrels for this article.

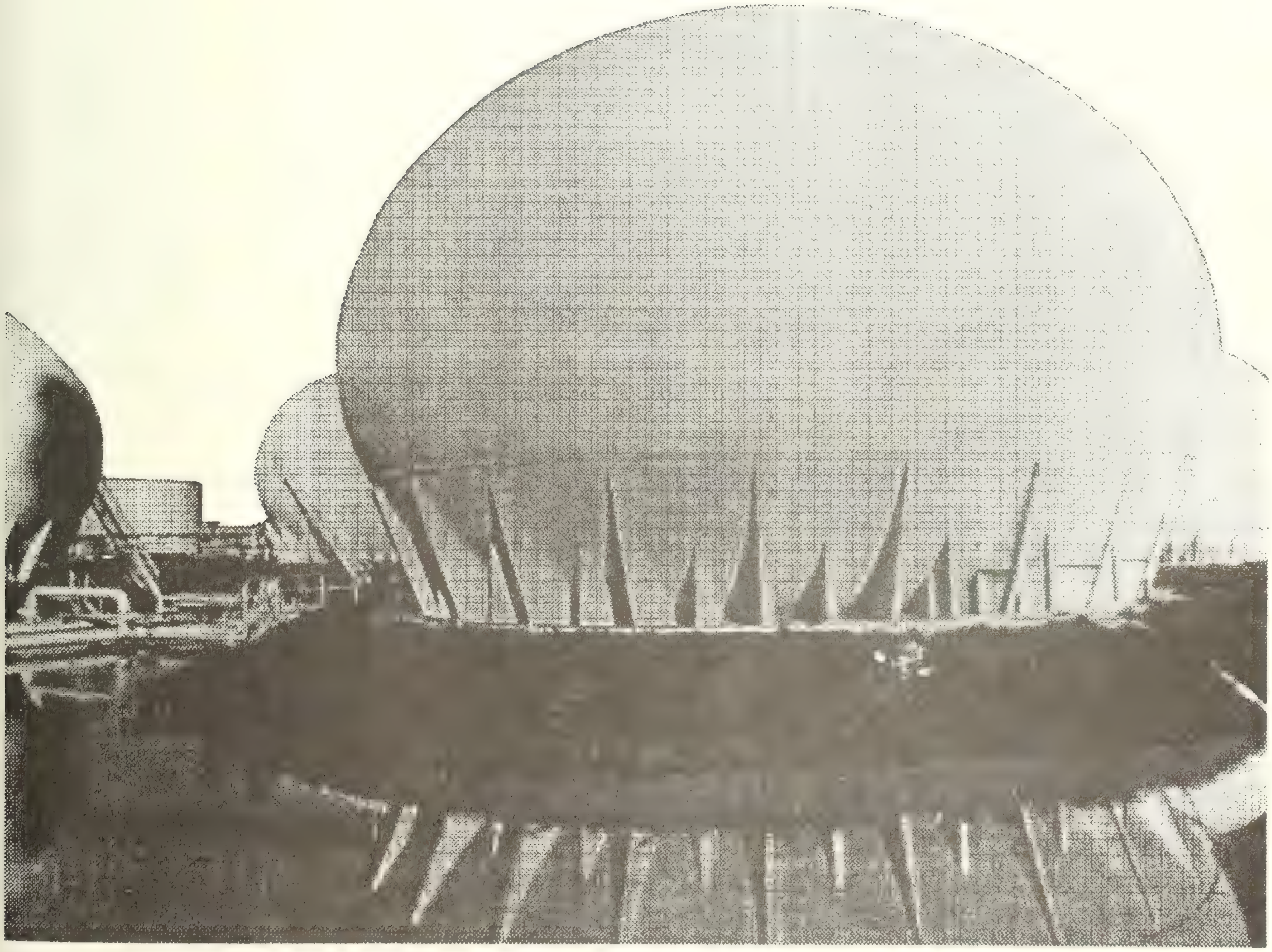
U.S. Bureau of the Census: Data for 1980 through 1985 are from the *Annual U.S. Imports for Consumption and General Imports*. Since 1986, Census data have been available through the IM-115 data tape. Imports to Puerto Rico and the Virgin Islands are excluded. Census data do not include imports into the United States from Puerto Rico and the Virgin Islands.

Petroleum Marketing Division: EIA's Petroleum Marketing Division data are from the Form EIA-25, "Prime Supplier's Monthly Report" (computer printouts), 1980-1982. "Prime supplier" usually is the supplier or producer who makes the first sale of any product into the State. In 1983, the Form EIA-25 was incorporated into the Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption."

1. The EIA-782C is a sales survey with volumes based on transfer of ownership, while the EIA-810 is a supply survey with volumes reported based on the amount of petroleum in custody, regardless of ownership (equity basis vs. custody basis).
2. To avoid double counting, the EIA-782C excludes sales between refiners, while the EIA-810 would include product supplied from one refiner to another. However, double counting could still result because of increased trading activity involving gasoline which is complicating the markets.
3. Companies do not report exchanges, intra-company transfers, or own company use such as residual fuel used as a feedstock on the EIA-782C. These volumes would be reported on EIA-810.
4. The EIA-782C is completed at the company level, while the EIA-810 series is reported down to the facility/site level.
5. Drawdowns or build-ups in stocks will cause supply volumes to differ from sales volumes (i.e. seasonality).

Further research and investigative study is expected to be undertaken which will provide the EIA with additional information that will benefit the data collection process.

Highlights



Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

The end of the summer driving season and further increases in petroleum prices in September led to a marked decline in demand for petroleum products. Total demand (measured as product supplied) plummeted from the unusually high August 1990 level to 16.4 million barrels per day (Table H1), and was slightly below the September 1989 level. Further increases in petroleum product prices in September dampened demand for motor gasoline and residual fuel oil, but demand for distillate fuel oil and kerosene-type jet fuel remained relatively high. Year-to-date demand was slightly below the level for the comparable period of 1989.

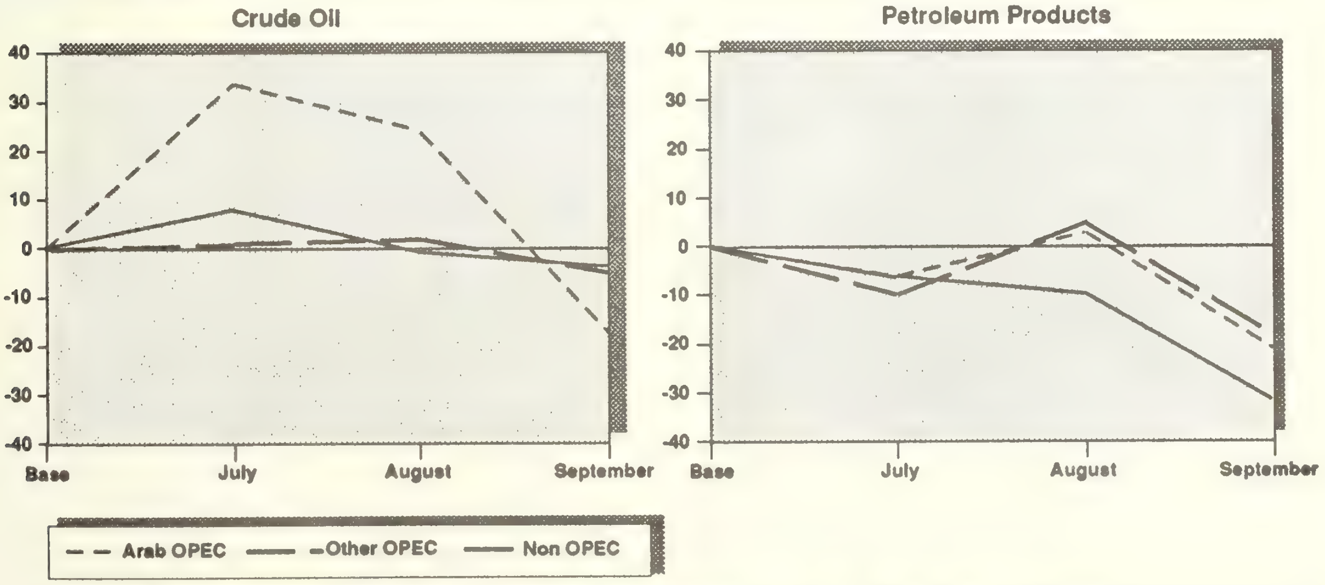
U.S. import and export patterns began to change for some commodities after the Iraqi invasion of Kuwait on August 2, 1990. By September, crude oil imports were at the lowest level of 1990, and imports of petroleum products were the lowest since April 1983. At the same time, exports of some petroleum products were unusually high.

During the first 6 months of 1990, the relatively low world price of crude oil was reflected in the declining U.S. refiner acquisition cost. Even in July, when prices moved upward, the average refiner acquisition cost was only $16.15 per barrel. Refiners took advantage of these low prices by importing and stockpiling crude oil. About one-third of crude oil imports are from the Arab Organization of Petroleum Exporting Countries (OPEC). After the Iraqi invasion of Kuwait, the world price escalated sharply and crude oil import patterns began to change. In July, imports were the highest since October 1979, with Iraq and Kuwait providing 17 percent. By mid-September, most of the shipments that left Iraq and Kuwait before the international embargo was imposed on August 4 had reached the United States, and imports from Iraq and Kuwait represented only 6 percent of the total imported. The loss of crude oil from these countries caused imports from Arab OPEC countries to plummet. Compared with the daily average imports from this area during the first half of 1990, imports from Arab OPEC in September were 17 percent lower (Figure H1).

The United States is more dependent on non-OPEC countries for imports of petroleum products. Non-OPEC countries accounted for 64 percent of the average product imports during the first 6 months of 1990. After the Iraqi invasion, product imports from some countries that rely on Arab OPEC crude oil were significantly reduced. By September, U.S. imports from Brazil, Colombia, Spain, and others were well below average. Product imports from Mexico were also significantly lower in September, but crude oil imports were higher than normal. Compared with the daily average imports from non-OPEC countries during the first half of 1990, product imports in September were 31 percent lower. All major petroleum products were affected.

The loss of Kuwaiti refining capacity caused spot prices for petroleum products to rise even more sharply on the Rotterdam exchange than on the New York exchange.[1] The more competitive U.S. spot prices for motor gasoline and distillate fuel oil stimulated exports of these products in September.

Figure H1. Third-Quarter Changes in Imports of Crude Oil and Petroleum Products from the January-June 1990 Base
(Percent)



Source: Energy Information Administration, *Petroleum Supply Monthly*, June 1990, Table 30, and July-September 1990, Table 25.

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[1] Energy Information Administration, *Weekly Petroleum Status Report*, September 28, 1990, Table 13.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1990			1989	January — September	
	September	August	Difference[a]	September	1990	1989
Products Supplied	**16.4**	**17.9**	**-1.5**	**16.6**	**17.0**	**17.2**
Finished Motor Gasoline	6.9	7.8	-0.9	7.2	7.2	7.3
Distillate Fuel Oil	2.9	3.2	-0.3	2.9	3.0	3.1
Residual Fuel Oil	1.0	1.3	-0.3	1.0	1.3	1.3
Liquefied Petroleum Gases	1.5	1.4	0.1	1.6	1.5	1.6
Other Petroleum Products[b]	4.1	4.3	-0.2	4.0	3.9	3.8
Crude Oil	(s)	(s)	(s)	(s)	(s)	(s)
Crude Oil Inputs	**14.1**	**14.1**	**(s)**	**13.8**	**13.6**	**13.4**
Operable Utilization Rate (percent)	**91.0**	**91.4**	**-0.4**	**88.4**	**88.6**	**86.6**
Imports	**7.3**	**8.6**	**-1.2**	**8.0**	**8.4**	**8.1**
Crude Oil	**5.7**	**6.4**	**-0.8**	**6.0**	**6.2**	**5.8**
Strategic Petroleum Reserve	0.0	0.1	-0.1	0.1	(s)	0.1
Other	5.7	6.3	-0.7	6.0	6.2	5.7
Products	**1.7**	**2.1**	**-0.4**	**2.0**	**2.2**	**2.2**
Finished Motor Gasoline	0.3	0.3	-0.1	0.3	0.4	0.4
Distillate Fuel Oil	0.2	0.3	-0.1	0.2	0.3	0.3
Residual Fuel Oil	0.3	0.6	-0.3	0.5	0.5	0.6
Liquefied Petroleum Gases	0.1	0.2	-0.1	0.2	0.2	0.2
Other Petroleum Products[b]	0.7	0.7	(s)	0.8	0.8	0.8
Exports	**0.8**	**0.8**	**(s)**	**0.7**	**0.8**	**0.8**
Crude Oil	0.1	0.1	(s)	(s)	0.1	0.1
Products	0.8	0.8	(s)	0.6	0.7	0.7
Total Net Imports	**6.5**	**7.7**	**-1.2**	**7.3**	**7.6**	**7.2**
Stock Change[c]	**(s)**	**-0.3**	**0.3**	**0.4**	**0.4**	**0.3**
Crude Oil	-0.9	-0.2	-0.7	-0.1	(s)	0.1
Products	0.9	-0.1	1.0	0.6	0.4	0.2
Total Stocks at End of Period (million barrels)	**1,701**	**1,701**	**1**	**1,667**	**--**	**--**
Crude Oil	**933**	**959**	**-27**	**912**	**--**	**--**
Strategic Petroleum Reserve	590	590	(s)	577	--	--
Other	343	370	-27	335	--	--
Products	**769**	**742**	**27**	**755**	**--**	**--**
Finished Motor Gasoline	189	174	15	186	--	--
Distillate Fuel Oil	136	131	5	123	--	--
Residual Fuel Oil	50	48	1	49	--	--
Liquefied Petroleum Gases	124	123	2	125	--	--
Other Petroleum Products[b]	270	266	4	272	--	--

[a] Difference is equal to volume for current month minus volume for previous month.

[b] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, appropriate issues of *Petroleum Supply Monthly*, see Explanatory Note 5.

Information about the effects of the Clean Air Act of 1990 on the oil industry begins on page xxv.

Other September 1990 highlights include:

- Shifts in the spot price and the average retail price of motor gasoline contributed to unusually high exports, and to the lowest September demand since 1986. The low demand and the continuing high refinery production beyond the summer driving season served to eliminate the shortfall in stocks that had been a concern in recent months.

- Distillate fuel oil demand was at a record high for September, as marketers continued to build up secondary stocks in anticipation of a further escalation in prices. Pre-winter inventory buildup continued at a healthy pace, as stocks reached the highest September level since 1986.

- Fuel-switching to natural gas at some utilities lowered demand for residual fuel oil in September. Imports were at a record low level, but relatively high refinery production more than compensated for the decline.

- Demand for liquefied petroleum gases increased, primarily because of increases in ethane and butane demand. Propane demand, which usually increases in September, changed little. As a result, the shortfall in propane stocks was greatly reduced.

- In spite of higher prices, demand for kerosene-type jet fuel remained relatively high in September, primarily because of continued troop deployment and travel incentives offered by U.S. airlines. Ending stocks were well above the year-earlier level.

- Continued escalation in the world price of crude oil and the loss of supplies from Iraq and Kuwait were primary factors in the decline in crude oil imports, excluding the Strategic Petroleum Reserve (SPR), to the lowest level of 1990. Substantial stock withdrawals to offset lower imports eliminated much of the cushion that had existed in recent months.

- The operable refinery utilization rate declined slightly, but remained well above the September 1989 rate, as refiners kept motor gasoline production high beyond the summer driving season.

Motor Gasoline

Unusual shifts in the spot price and the average retail price of motor gasoline in September caused uncustomary changes in motor gasoline supply and demand. Exports of motor gasoline were unusually high in August and September because New York spot prices were lower than Rotterdam spot prices in Europe. In September, unusually large volumes of motor gasoline were exported to France and the Netherlands.

The second sharp rise in the U.S. average retail price of motor gasoline in 2 months, and the end of the summer driving season, combined to sharply dampen demand in September. Demand dropped an unprecedented 0.9 million barrels per day from the August 1990 level to 6.9 million barrels per day, the lowest level for September since 1986. After the Iraqi invasion in early August, the average retail price shot upward, and in September hit $1.35 per gallon, compared with $1.07 per gallon in September 1989. The average retail price had not been this high since December 1981.

The large drop in demand and continued high refinery production of motor gasoline resulted in a substantial increase in primary stocks, which had been unusually low in recent months. Stocks of finished motor gasoline of 189 million barrels were the highest for September since 1986.

Distillate Fuel Oil

Although demand for distillate fuel oil declined from the unusually high August level to 2.9 million barrels per day, it was at a record high level for September, as it edged above the September 1989 level. After the Iraqi invasion of Kuwait, heating oil marketers began to build up secondary stocks in anticipation of even higher prices in future months. As a result, demand for distillate fuel oil was higher than normal in August and September, despite markedly higher prices than in the recent past. For the year to date, demand was close to that of the previous 2 years.

Distillate fuel oil stocks continued to be built up to healthy pre-winter levels during September. A moderate increase brought the stock level to 136 million barrels at the end of September. This was 11 percent higher than the level at the end of September 1989, and was the highest level for September since 1986.

Residual Fuel Oil

Substantially higher prices for residual fuel oil in September caused fuel-switching to less expensive natural gas at some electric utilities, contributing to a substantial decline in demand for residual fuel oil in September. The decline brought demand to 1.0 million barrels per day, about the same level as in September 1989. Year-to-date demand was slightly below the average for the comparable period of 1989 and 1988.

Imports of residual fuel oil dropped to a record low 0.3 million barrels per day in September. Imports have accounted for between 42 and 47 percent of demand in recent years; in September, they represented 32 percent. Refinery production remained relatively high in September, however, and more than compensated for the decline in imports in meeting demand.

Liquefied Petroleum Gases

Demand for LPGs increased to 1.5 million barrels per day in September, primarily because of increases in demand for butane and ethane. Demand for propane, which usually increases substantially in September, remained close to the August 1990 level. Butane demand, which was unusually low in July and August, rebounded to a more normal seasonal level in September. The increased use of butane in gasoline blending also resulted in a substantial rise in refinery inputs of butane in September, as summertime motor gasoline volatility rules expired on September 15.

The absence of the usual September increase in propane demand allowed an uncharacteristic increase in stocks. Although stocks of propane remained somewhat below the year-earlier level, they approached the normal range for this time of year. Propane stocks had been very low since December 1989. Total LPG stocks of 124 million barrels were about the same as in September 1989.

Kerosene-type Jet Fuel

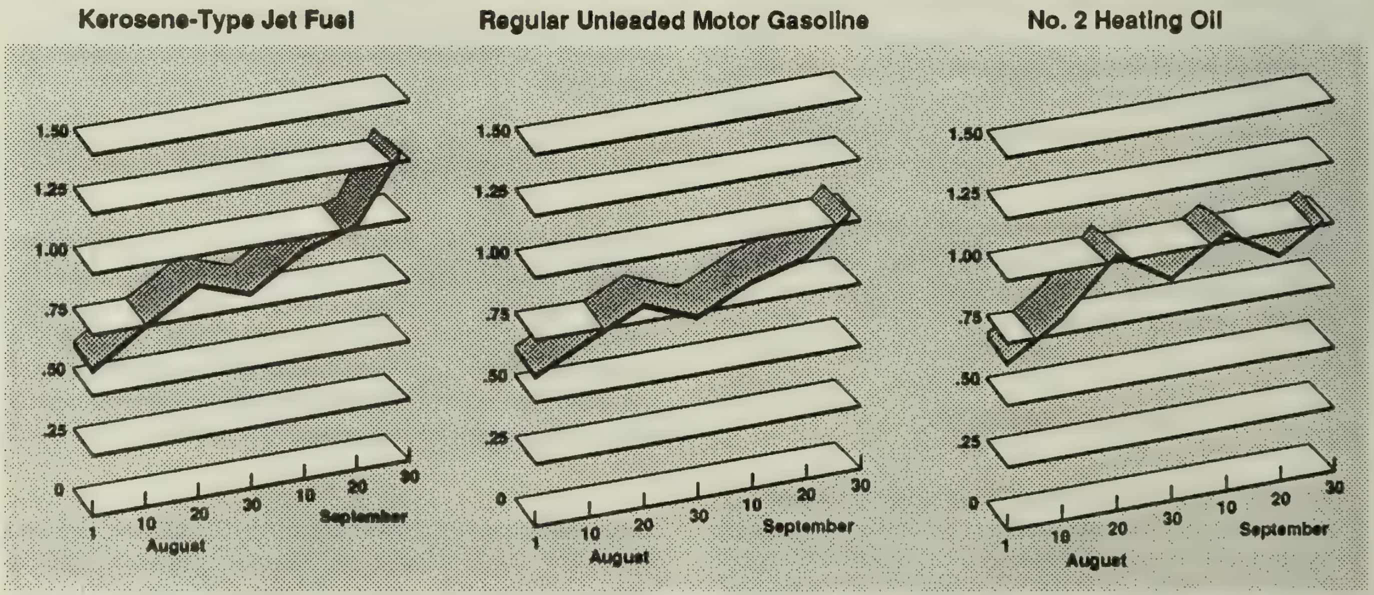
Of the major petroleum products, jet fuel was most affected by the Persian Gulf crisis during August and September. Factors such as high crude oil prices, the loss of Kuwaiti refining capacity, and the increased need for jet fuel for military operations in the Persian Gulf, combined to put upward pressure on jet fuel prices. The day before the Iraqi invasion of Kuwait, the spot price for kerosene-type jet fuel of 61 cents per gallon (Figure H2) was 10 percent lower than the comparable price for regular unleaded motor gasoline, and slightly higher than for No. 2 heating oil. On September 28, 1990, the spot price for kerosene-type jet fuel of $1.28 per gallon was 26 percent and 24 percent higher than for these respective products.

Although prices escalated faster than for the other major products, demand for kerosene-type jet fuel was relatively high at 1.3 million barrels per day in August and September, despite sluggish commercial air travel. Troop deployment operations for Operation Desert Shield primarily contributed to the demand.

In an effort to counteract the sudden escalation in jet fuel prices, U. S. airlines imposed a fare increase of 5.3 percent on domestic flights effective August 30, 1990, and an increase of about 7 percent on international flights, effective October 1, 1990. Fuel costs account for 20 to 30 percent of an airline's operating expenses, depending on the age of the fleet and the length of the routes traveled. To help offset the fare increases, airlines offered travelers a variety of discounts for immediate travel.

Stocks increased slightly to 44 million barrels in September, even though demand was high and imports were lower than usual. An increase in refinery production more than offset the loss of imports. Stocks at the end of September were well above the level at the end of September 1989.

Figure H2. Spot Prices for Selected Petroleum Products
(Dollars per Gallon)



Kerosene-Type Jet Fuel

Regular Unleaded Motor Gasoline

No. 2 Heating Oil

Source: *Reuters News Service*, Daily Issues.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1989-1990
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1989												
Gross Refinery Inputs	13,502	12,974	13,131	13,123	13,566	14,067	13,957	14,024	13,898	13,533	13,549	13,244
Operable Refinery Capacity	15,655	15,671	15,669	15,687	15,692	15,698	15,698	15,706	15,722	15,722	15,732	15,761
Idle Capacity[1]	**643**	**707**	**738**	**743**	**683**	**575**	**602**	**632**	**759**	**775**	**626**	**644**
Idle Three Months or Less	175	233	225	180	140	46	50	80	211	201	51	66
Idle More than Three Months	468	474	513	563	543	529	552	552	548	574	575	578
Operating Capacity[2]	15,012	14,964	14,931	14,944	15,008	15,124	15,097	15,075	14,963	14,946	15,106	15,117
Utilization Rate (percent)												
Operable Capacity	86.2	82.8	83.8	83.7	86.5	89.6	88.9	89.3	88.4	86.1	86.1	84.0
Operating Capacity	89.9	86.7	87.9	87.8	90.4	93.0	92.4	93.0	92.9	90.6	89.7	87.6
1990												
Gross Refinery Inputs	13,628	13,653	13,047	13,234	13,570	13,886	14,397	14,225	14,301	NA	NA	NA
Operable Refinery Capacity	15,533	15,540	15,498	15,496	15,527	15,527	15,543	15,559	15,712	NA	NA	NA
Idle Capacity[1]	**550**	**578**	**712**	**729**	**621**	**621**	**507**	**511**	**602**	**NA**	**NA**	**NA**
Idle Three Months or Less	135	154	293	258	133	130	34	11	106	NA	NA	NA
Idle More than Three Months	415	424	419	471	488	491	473	500	496	NA	NA	NA
Operating Capacity[2]	14,983	14,962	14,786	14,767	14,906	14,906	15,036	15,048	15,111	NA	NA	NA
Utilization Rate (percent)												
Operable Capacity	87.7	87.9	84.2	85.4	87.4	89.4	92.6	91.4	91.0	NA	NA	NA
Operating Capacity	91.0	91.3	88.2	89.6	91.0	93.2	95.8	94.5	94.6	NA	NA	NA

[1] Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

[2] Operating capacity equals the operable capacity less the total idle capacity.

NA= Not Available.

Sources: Energy Information Administration, *Petroleum Supply Monthly*, 1990 issues, Table 18; *Petroleum Supply Annual*, Volume 2, 1989, Table 16; Form EIA- 810, "Monthly Refinery Report."

Crude Oil

Crude oil imports (excluding the SPR) declined to 5.7 million barrels per day in September, the lowest level of 1990, as the Persian Gulf situation continued to impact world petroleum markets. The world price of crude oil at the end of September of $36.11 was 35 percent higher than the price at the end of August 1990, and more than double the price at the end of July. The price escalation and loss of supplies from Iraq and Kuwait were the primary factors in the lower imports.

The drop in imports necessitated a drawdown of stocks to accommodate refinery inputs. Crude oil stocks (excluding the SPR) had been substantially above year-earlier levels all year, but plummeted in September. The decline to 343 million barrels at the end of September eliminated much of the cushion that had existed in recent months. Nevertheless, stocks were notably higher than at the end of September 1989.

Refinery Utilization

The operable refinery utilization rate in September decreased slightly to 91.0 percent, but remained well above the year-earlier rate of 88.4 percent. Refiners kept utilization high in September in order to replenish primary stocks of motor gasoline, which had been unusually low in July and August. Gross inputs (crude and other oils) to atmospheric crude oil distillation units increased slightly in September to 14.3 million barrels per day. The operating utilization rate, which reflects refinery utilization if all idle capacity is removed, increased to 94.6 percent in September 1990 (Table H2).

News Highlights

Effects of the Clean Air Act of 1990 On the Oil Industry

The amended Clean Air Act was signed into law on November 15, 1990, after 16 months of congressional debate. The Clean Air Act of 1990 is designed primarily to combat urban smog, airborne toxics, acid rain, and ozone-depleting chemicals. Its mandates will impact the economy, public health, and every day lives into the 21st century. The Act encompasses the first amendments to the original Clean Air Act in 13 years, and will have a significant impact on several industries, including the oil industry.

The first Clean Air Act was signed into law in 1963, with major amendments in 1970 and 1977. Among the provisions of the 1970 Act was a provision for Federal guidance of a National air pollution control program. The 1970 Act also required the newly created Environmental Protection Agency (EPA) to set air quality control regions, publish a list of pollutants harmful to the public, and to establish ambient air quality standards for each pollutant. The Clean Air Act of

1977 called for automotive emissions standards for 1980 and 1981 model automobiles. It set standards to protect clean air areas, and it extended the deadline for cities to meet National air quality standards.

Whereas the 1970 Clean Air Act set emission standards for vehicles, the 1990 Clean Air Act focuses on reducing the pollutant content of fuel, in addition to reducing vehicle emissions. Provisions to require reformulated gasoline in the Nation's smoggiest cities and to reduce the sulfur content of diesel fuel will have profound effects on the production, distribution, and sale of petroleum fuels.

The requirement that only cleaner-burning reformulated gasoline be used in the 9 smoggiest cities of the United States by 1995 is designed to reduce emissions of hydrocarbons and toxic pollutants by 15 percent at first, and by 20 percent by the year 2000.[2] The cities are Baltimore, Chicago, Houston, Los Angeles, Milwaukee, Muskegon, New York, Philadelphia, and San Diego. These cities represent 25 percent of the U.S. gasoline market. To meet these standards, refiners will be required to supply 6 octane grades of gasoline instead of the 3 grades currently available. The 3 additional octane grades of reformulated gasoline will be required in areas not in compliance with Federal pollution standards. The petroleum industry has until 1995 to modify the refining and distribution systems to accommodate the production, storage, and distribution of six grades of gasoline.

The tighter diesel regulations to reduce toxic emissions are to take effect in October 1993. Refiners will be required to store diesel fuel separately from distillate fuel oil, because the sulfur content of highway diesel fuel is to be reduced from 0.25 percent sulfur by weight to 0.05 percent. Distillate fuel oil not meeting these requirements will be used for home heating oil and other applications. At present, no separate storage is needed for distillate and diesel fuels.

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[2] "Price Tag Is Producing Groans Already", *The Wall Street Journal*, October 29, 1990, p. A7.

Cleaner-burning diesel fuel and reformulated gasolines mandated by the 1990 Clean Air Act will reduce toxic emissions from automobiles, buses, and trucks in the 1990's.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil[a] and Petroleum Products Overview

	Field Production			Stock Change[b]			Ending Stocks[c]
	Total Domestic[d]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[e]	Petroleum Products	Petroleum Products Supplied	Crude Oil[e] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 Average	10,975	9,208	1,738	-11	146	17,308	1,008
1974 Average	10,498	8,774	1,688	62	117	16,653	[h] 1,074
1975 Average	10,045	8,375	1,633	[h] 17	[h] 15	16,322	1,133
1976 Average	9,774	8,132	1,603	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	[h] 1,392
1981 Average	10,230	8,572	1,609	[h] 290	[h] -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	[h] 1,430
1983 Average	10,299	8,688	1,559	[h] 214	[h] -234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 January	9,876	8,250	1,579	-43	-294	17,403	1,597
February	10,018	8,374	1,605	133	-868	17,760	1,576
March	10,071	8,374	1,636	219	-748	17,612	1,559
April	9,946	8,288	1,618	190	445	16,561	1,578
May	9,899	8,229	1,627	96	1,048	16,197	1,614
June	9,833	8,170	1,616	43	-109	17,059	1,612
July	9,713	8,040	1,618	-261	819	16,695	1,629
August	9,762	8,079	1,616	-488	307	17,482	1,624
September	9,575	7,895	1,621	-83	245	17,072	1,628
October	9,737	8,023	1,661	399	-333	17,580	1,630
November	9,751	8,023	1,666	3	25	17,620	1,631
December	9,641	7,942	1,634	-188	-911	18,365	1,597
Average	9,818	8,140	1,625	1	-29	17,283	--
1989 January	9,678	7,937	1,664	179	563	17,269	1,620
February	9,441	7,788	1,607	47	-733	17,920	1,601
March	9,284	7,575	1,650	-127	-924	17,989	1,568
April	9,501	7,772	1,674	494	413	16,624	1,596
May	9,498	7,816	1,620	271	598	16,546	1,623
June	9,188	7,624	1,507	-434	-64	17,497	1,608
July	9,055	7,444	1,541	148	1,182	16,453	1,649
August	9,106	7,544	1,504	283	-104	17,360	1,654
September	9,096	7,548	1,480	-144	577	16,795	1,667
October	8,983	7,453	1,478	73	-378	17,304	1,658
November	9,084	7,536	1,483	541	-367	17,311	1,663
December	8,734	7,337	1,343	-302	-2,335	18,858	1,581
Average	9,219	7,613	1,546	86	-129	17,325	--
1990 January	E 9,113	E 7,522	1,525	377	1,189	16,968	1,632
February	E 9,093	E 7,465	1,558	-316	577	17,024	1,639
March	E 8,986	E 7,394	1,519	1,030	-883	17,083	1,643
April	E 8,883	E 7,331	1,481	-94	-25	16,666	1,640
May	E 8,838	E 7,259	1,499	501	505	16,843	1,671
June	E 8,602	E 7,076	1,453	75	348	17,112	1,684
July	E 8,694	E 7,144	1,480	-152	1,019	16,856	1,711
August	E 8,842	E 7,215	1,562	-227	-92	17,936	1,701
September*	RE 8,819	RE 7,167	R 1,587	R -884	R 901	R 16,437	R 1,701
October**	PE 8,871	PE 7,292	E 1,514	E *-227*	E *-302*	E *16,421*	E *1,689*
10-Mo. Average	PE 8,873	PE 7,286	E 1,517	E 15	E 320	E 16,936	--
1989 10-Mo. Average	9,282	7,649	1,572	80	119	17,170	--
1988 10-Mo. Average	9,842	8,171	1,620	19	56	17,140	--

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[a] Includes lease condensate.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Stocks are totals as of end of period.
[d] Includes crude oil, natural gas plant liquids, other hydrocarbons, and alcohol.
[e] Includes stocks located in the Strategic Petroleum Reserve.
[f] Includes crude oil for storage in the Strategic Petroleum Reserve.
[g] Net Imports equal Imports minus Exports.
[h] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

Footnotes continued on following page.

Table S1. Crude Oil[a] and Petroleum Products Overview (Continued)

	Imports			Exports			
	Total	Crude Oil[f]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[g]
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	472	235	237	7,984
1980 Average	6,909	5,263	1,646	544	287	258	6,365
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 January	7,181	4,662	2,519	885	206	679	6,296
February	7,256	4,650	2,605	864	146	718	6,392
March	6,944	4,868	2,076	834	213	622	6,110
April	7,270	5,167	2,103	676	114	562	6,594
May	7,469	5,339	2,130	814	138	676	6,655
June	7,239	5,322	1,917	938	138	800	6,301
July	7,297	5,100	2,197	826	186	640	6,471
August	7,386	5,089	2,296	814	152	661	6,572
September	7,506	5,212	2,294	673	119	554	6,833
October	7,830	5,551	2,279	732	166	566	7,098
November	7,714	5,070	2,644	717	148	569	6,997
December	7,727	5,230	2,497	1,008	129	879	6,719
Average	7,402	5,107	2,295	815	155	661	6,587
1989 January	8,255	5,661	2,594	761	137	624	7,494
February	8,032	5,305	2,727	875	208	666	7,157
March	7,456	5,035	2,421	860	156	704	6,596
April	8,078	5,750	2,328	810	139	670	7,268
May	7,778	5,729	2,049	791	131	661	6,986
June	7,977	5,976	2,002	975	243	732	7,002
July	8,369	6,214	2,155	780	69	711	7,589
August	8,560	6,565	1,995	967	162	805	7,593
September	8,002	6,028	1,975	655	32	623	7,347
October	8,301	6,187	2,115	791	61	730	7,511
November	8,341	6,171	2,170	975	120	855	7,366
December	7,579	5,463	2,116	1,067	247	821	6,512
Average	8,061	5,843	2,217	859	142	717	7,202
1990 January	9,147	6,206	2,941	710	132	578	8,437
February	8,306	5,858	2,447	822	102	720	7,483
March	7,925	6,125	1,800	881	133	748	7,045
April	7,758	5,740	2,018	761	112	649	6,997
May	8,738	6,438	2,300	690	112	578	8,048
June	8,690	6,413	2,276	804	88	715	7,886
July	8,893	6,812	2,081	696	89	606	8,197
August	8,558	6,432	2,127	850	64	785	7,709
September*	R 7,336	R 5,656	R 1,680	R 847	R 68	R 779	R 6,489
October**	E *6,650*	E *5,039*	E *1,610*	E 760	E 79	E 681	E 5,890
10-Mo. Average	E 8,202	E 6,075	E 2,126	E 781	E 98	E 683	E 7,420
1989 10-Mo. Average	8,082	5,850	2,232	826	133	693	7,256
1988 10-Mo. Average	7,338	5,098	2,241	806	158	647	6,533

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S1. Petroleum Overview

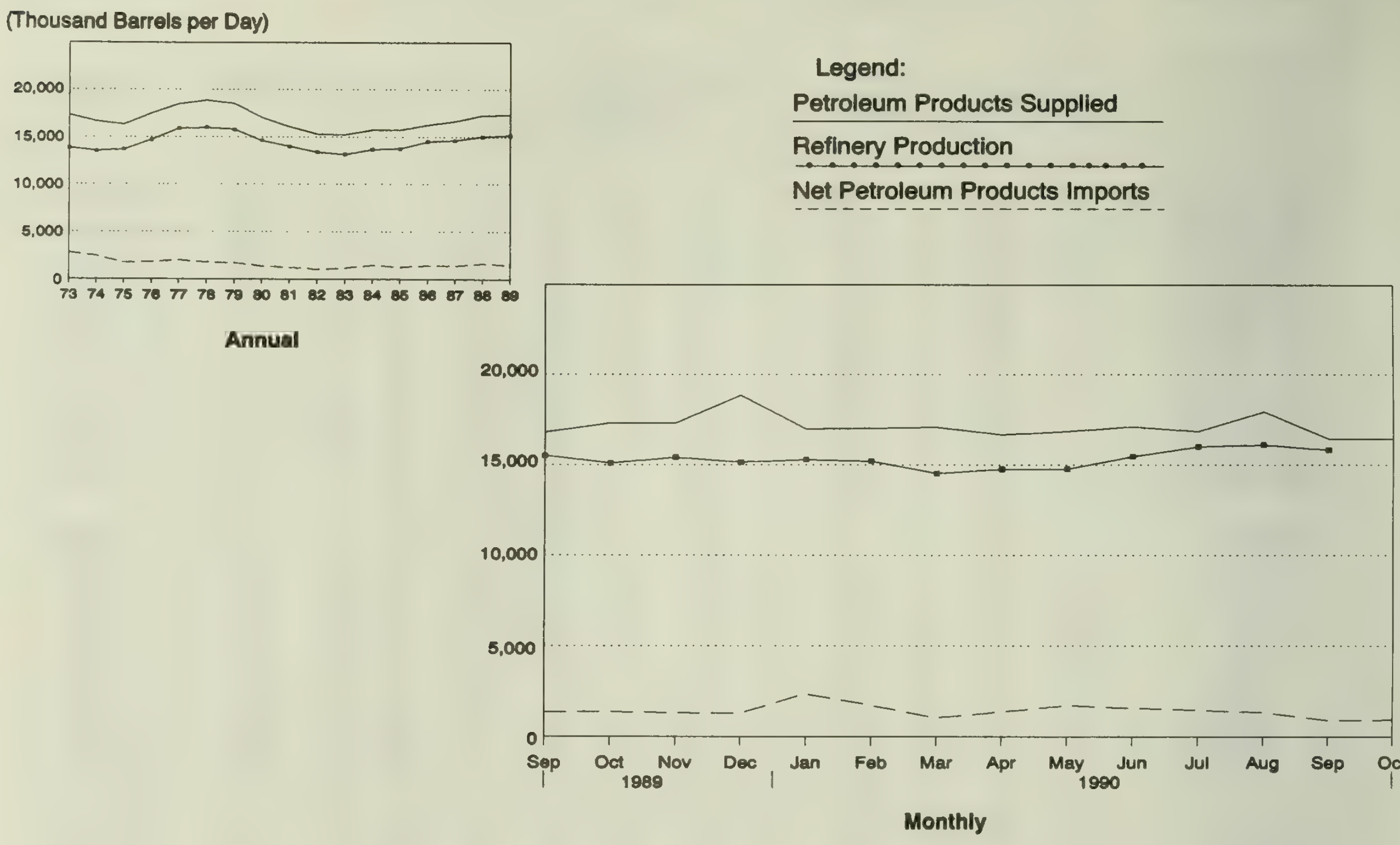

Figure S2. Petroleum Products Supplied

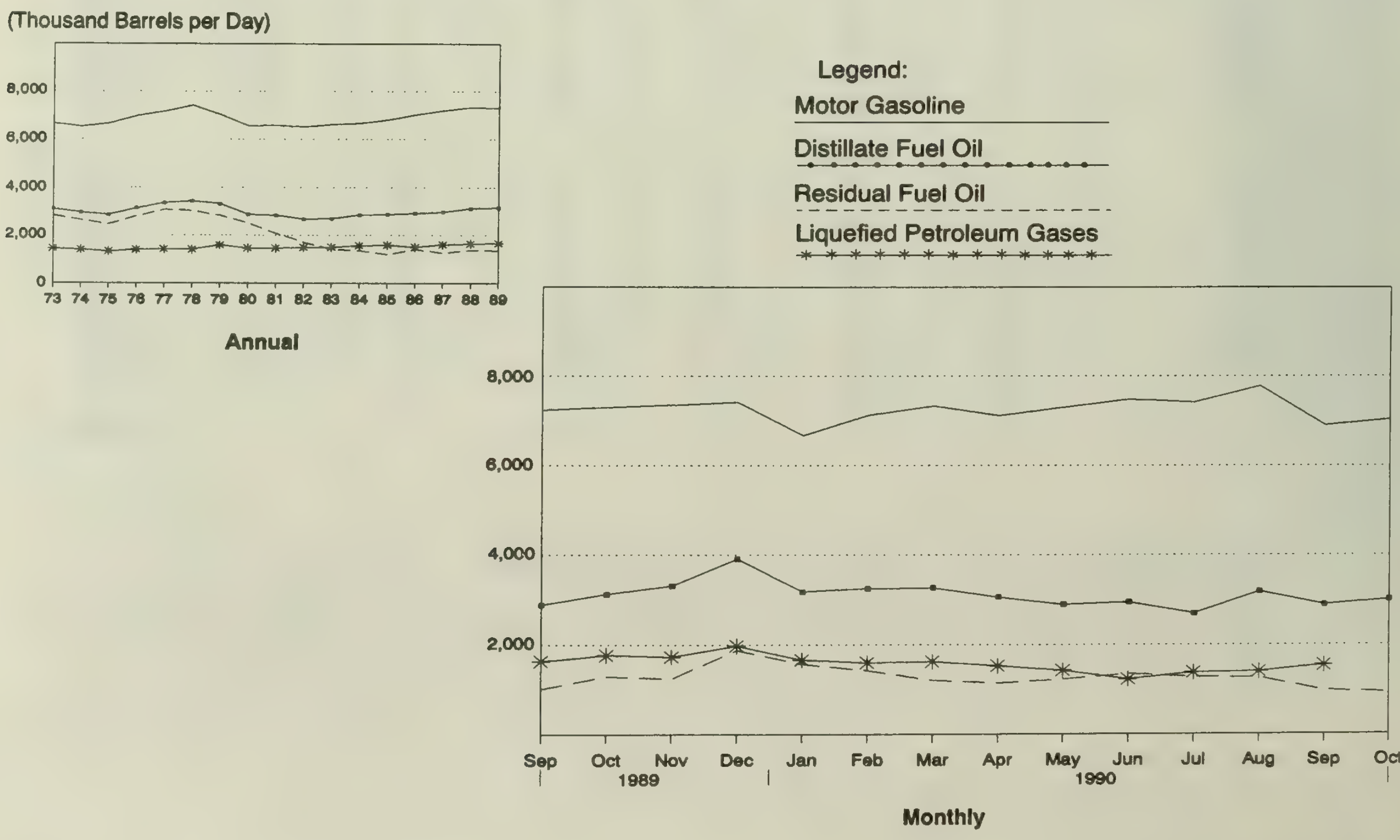

Figure S3. Crude Oil Supply and Disposition

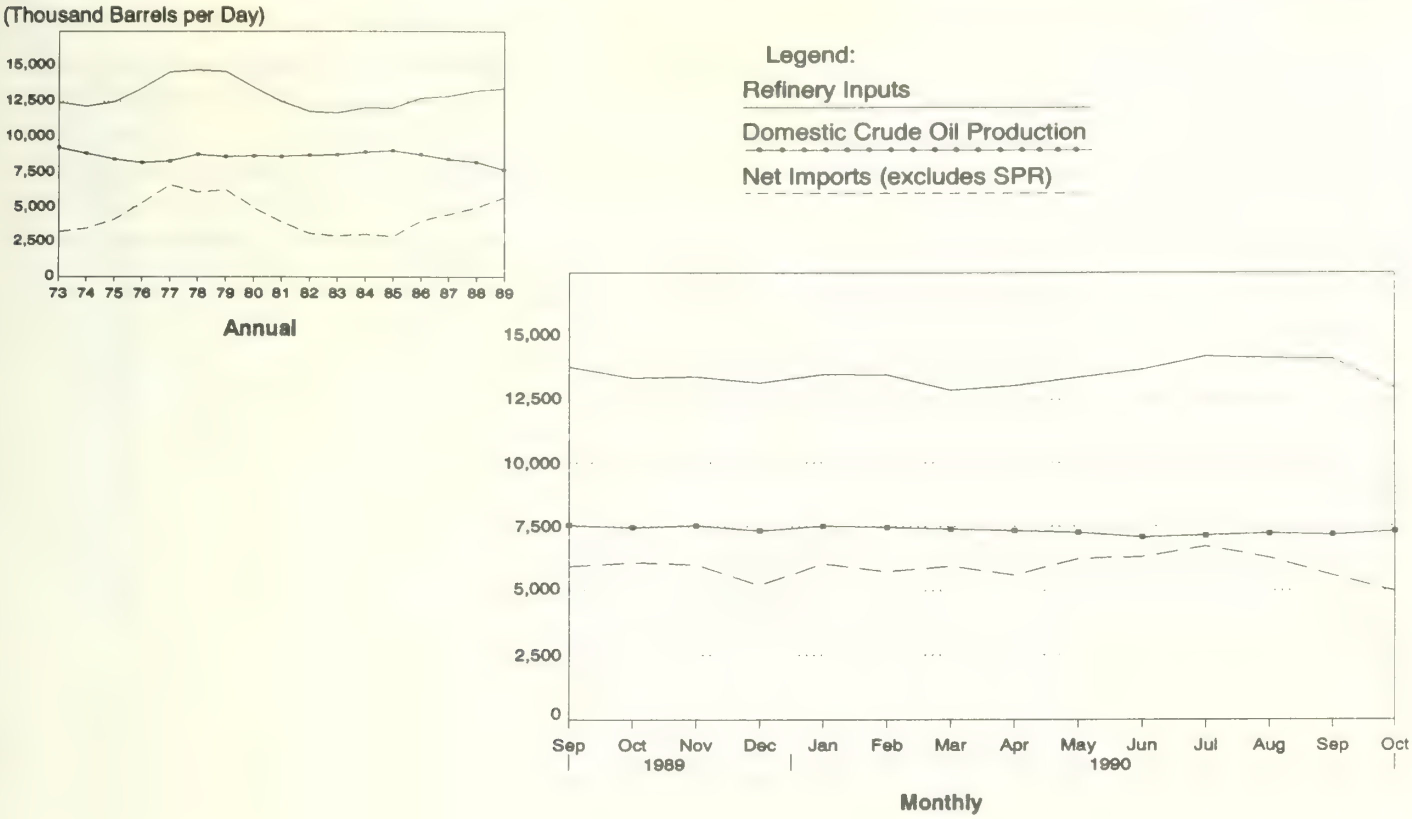

Figure S4. Crude Oil Ending Stocks

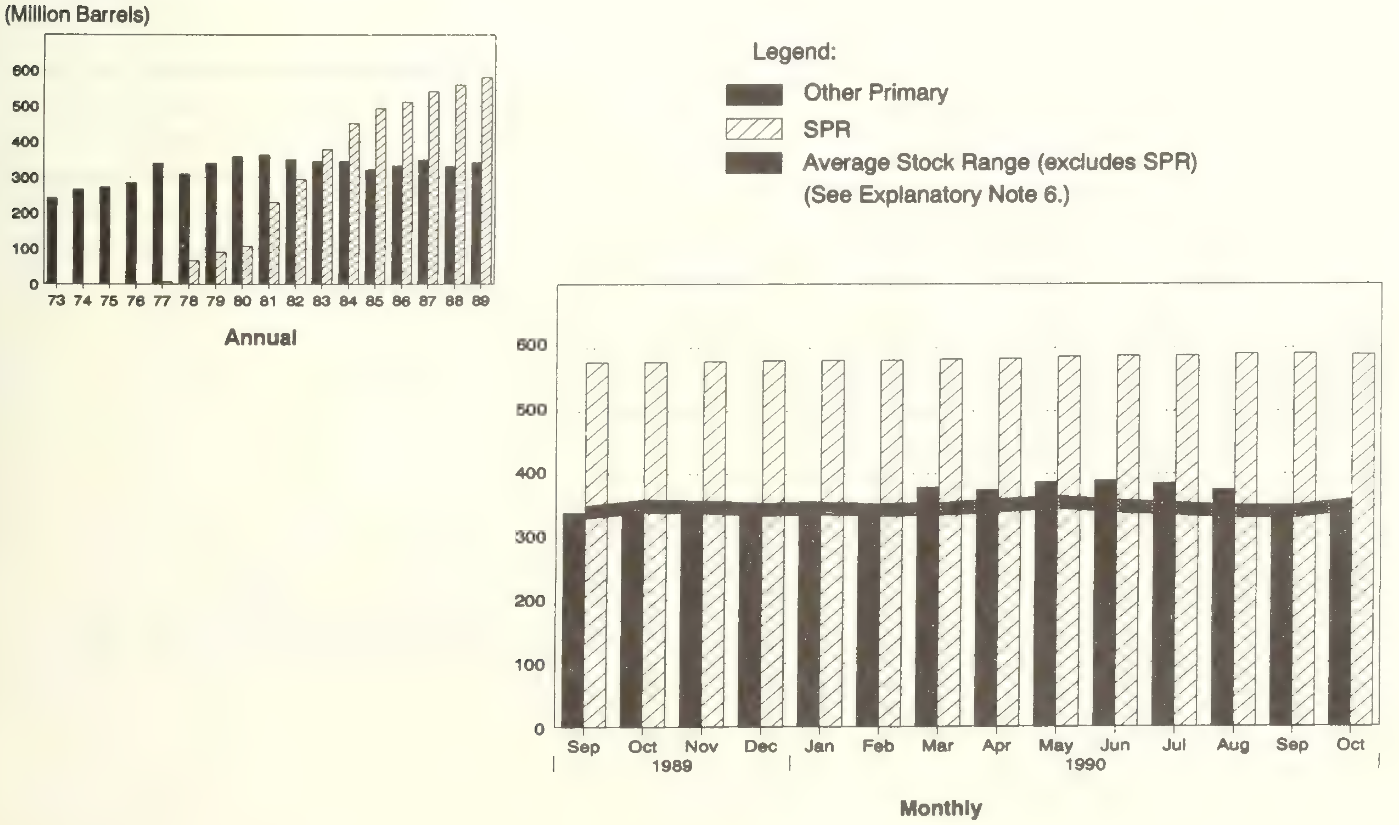

Table S2. Crude Oil[a] Supply and Disposition

		Supply							Disposition
		Field Production		Imports					
		Total Domestic	Alaskan	Total	SPR[d]	Other	Unaccounted for Crude Oil[e]	Crude Used Directly[f]	Crude Losses
		Thousand Barrels per Day							
1973	**Average**	**9,208**	**198**	**3,244**	**--**	**3,244**	**3**	**-19**	**13**
1974	**Average**	**8,774**	**193**	**3,477**	**--**	**3,477**	**-25**	**-15**	**13**
1975	**Average**	**8,375**	**191**	**4,105**	**--**	**4,105**	**17**	**-17**	**13**
1976	**Average**	**8,132**	**173**	**5,287**	**--**	**5,287**	**77**	**-18**	**15**
1977	**Average**	**8,245**	**464**	**6,615**	**21**	**6,594**	**-6**	**-14**	**16**
1978	**Average**	**8,707**	**1,229**	**6,356**	**162**	**6,195**	**-57**	**-14**	**16**
1979	**Average**	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-11**	**-13**	**16**
1980	**Average**	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**34**	**-13**	**15**
1981	**Average**	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**83**	**-58**	**5**
1982	**Average**	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**71**	**-59**	**3**
1983	**Average**	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**114**	**--**	**2**
1984	**Average**	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**185**	**--**	**2**
1985	**Average**	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**145**	**--**	**1**
1986	**Average**	**8,680**	**1,867**	**4,178**	**48**	**4,130**	**139**	**--**	**(s)**
1987	**Average**	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**--**	**(s)**
1988	January	8,250	1,999	4,662	67	4,595	216	--	(s)
	February	8,374	2,070	4,650	49	4,601	-50	--	(s)
	March	8,374	2,086	4,868	23	4,845	258	--	(s)
	April	8,288	2,029	5,167	78	5,090	27	--	(s)
	May	8,229	2,016	5,339	22	5,317	125	--	(s)
	June	8,170	1,984	5,322	70	5,252	208	--	(s)
	July	8,040	1,960	5,100	42	5,058	432	--	1
	August	8,079	2,009	5,089	26	5,064	278	--	(s)
	September	7,895	2,019	5,212	84	5,128	228	--	(s)
	October	8,023	2,010	5,551	43	5,508	160	--	(s)
	November	8,023	2,027	5,070	89	4,981	258	--	(s)
	December	7,942	1,996	5,230	27	5,203	196	--	(s)
	Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**--**	**(s)**
1989	January	7,937	1,958	5,661	65	5,596	94	--	(s)
	February	7,788	1,962	5,305	84	5,221	-26	--	(s)
	March	7,575	1,686	5,035	75	4,960	426	--	(s)
	April	7,772	1,890	5,750	59	5,690	91	--	(s)
	May	7,816	1,973	5,729	77	5,652	280	--	(s)
	June	7,624	1,861	5,976	55	5,920	135	--	(s)
	July	7,444	1,725	6,214	75	6,139	426	--	(s)
	August	7,544	1,870	6,565	32	6,533	213	--	(s)
	September	7,548	1,875	6,028	59	5,969	121	--	1
	October	7,453	1,877	6,187	37	6,149	-125	--	0
	November	7,536	1,915	6,171	41	6,131	397	--	(s)
	December	7,337	1,904	5,463	12	5,452	343	--	(s)
	Average	**7,613**	**1,874**	**5,843**	**56**	**5,787**	**200**	**--**	**(s)**
1990	January	E 7,522	E 1,864	6,206	24	6,182	321	--	(s)
	February	E 7,465	E 1,834	5,858	12	5,847	-9	--	0
	March	E 7,394	E 1,819	6,125	44	6,081	544	--	0
	April	E 7,331	E 1,803	5,740	38	5,702	22	--	(s)
	May	E 7,259	E 1,766	6,438	89	6,349	335	--	0
	June	E 7,076	E 1,613	6,413	17	6,397	394	--	(s)
	July	E 7,144	E 1,687	6,812	0	6,812	220	--	0
	August	E 7,215	E 1,736	6,432	95	6,337	348	--	(s)
	September*	RE 7,167	RE 1,702	R 5,656	0	R 5,656	R 480	--	(s)
	October**	PE 7,292	PE 1,883	E *5,039*	E *0*	E *5,039*	E *442*	--	E (s)
	10-Mo. Average	**PE 7,286**	**PE 1,771**	**E 6,075**	**E 32**	**E 6,043**	**E 313**	**--**	**E (s)**
1989	**10-Mo. Average**	**7,649**	**1,867**	**5,850**	**82**	**5,788**	**166**	**--**	**(s)**
1988	**10-Mo. Average**	**8,171**	**2,018**	**5,098**	**50**	**5,048**	**190**	**--**	**(s)**

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[a] Includes lease condensate.

[b] Stocks are totals as of end of period.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[d] Strategic Petroleum Reserve.

[e] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[f] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.

[g] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock changes are calculated using new basis stock levels.

See Explanatory Notes 11, 12, and 13.

Footnotes continued on following page.

Table S2. Crude Oil[a] Supply and Disposition (Continued)

		Disposition					Ending Stocks[b]		
		Stock Change[c]							
		SPR[d]	Other	Refinery Inputs	Exports	Product Supplied[f]	Total	SPR[d]	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	**Average**	–	-11	12,431	2	–	242	–	242
1974	**Average**	–	62	12,133	3	–	265	–	265
1975	**Average**	–	17	12,442	6	–	271	–	271
1976	**Average**	–	39	13,416	8	–	285	–	285
1977	**Average**	20	150	14,602	50	–	348	7	340
1978	**Average**	163	-84	14,739	158	–	376	67	309
1979	**Average**	67	81	14,648	235	–	430	91	339
1980	**Average**	45	52	13,481	287	–	[g] 466	108	[g] 358
1981	**Average**	336	[g] -46	12,470	228	–	594	230	363
1982	**Average**	174	-38	11,774	236	–	[g] 644	294	[g] 350
1983	**Average**	234	[g] -20	11,685	164	66	723	379	344
1984	**Average**	195	4	12,044	181	64	796	451	345
1985	**Average**	117	-67	12,002	204	60	814	493	321
1986	**Average**	50	28	12,716	154	49	843	512	331
1987	**Average**	80	49	12,854	151	34	890	541	349
1988	January	67	-110	12,920	206	45	888	543	346
	February	49	84	12,644	146	52	892	544	348
	March	26	193	13,016	213	52	899	545	354
	April	77	112	13,135	114	42	905	547	357
	May	22	74	13,425	138	34	908	548	360
	June	70	-27	13,487	138	32	909	550	359
	July	42	-302	13,617	186	29	901	551	349
	August	28	-514	13,752	152	30	886	552	334
	September	84	-167	13,261	119	37	883	555	329
	October	43	356	13,126	166	42	896	556	340
	November	89	-86	13,156	148	44	896	559	337
	December	27	-215	13,381	129	44	890	560	330
	Average	**52**	**-51**	**13,246**	**155**	**40**	–	–	–
1989	January	65	115	13,330	137	47	895	562	334
	February	85	-38	12,765	208	48	897	564	333
	March	75	-202	12,963	156	45	893	566	327
	April	60	434	12,956	139	23	908	568	340
	May	77	194	13,405	131	19	916	570	346
	June	44	-478	13,905	243	20	903	572	331
	July	86	62	13,848	69	19	908	574	333
	August	32	251	13,861	162	17	916	575	341
	September	59	-203	13,791	32	18	912	577	335
	October	37	36	13,360	61	21	914	578	336
	November	41	500	13,420	120	25	930	579	351
	December	12	-313	13,165	247	33	921	580	341
	Average	**56**	**30**	**13,401**	**142**	**28**	–	–	–
1990	January	24	353	13,499	132	40	933	581	352
	February	12	-328	13,494	102	36	924	581	343
	March	44	986	12,876	133	24	956	582	374
	April	38	-132	13,051	112	24	953	583	370
	May	89	412	13,389	112	30	969	586	382
	June	16	59	13,690	88	29	971	587	384
	July	0	-152	14,208	89	31	966	587	380
	August	94	-321	14,140	64	18	959	590	370
	September*	R (s)	R -884	R 14,105	R 68	R 14	R 933	590	R 343
	October**	E *-7*	E *-220*	E *12,934*	E 79	E 26	E *939*	E *589*	E *350*
	10-Mo. Average	E **31**	E **-17**	E **13,538**	E **98**	E **27**	–	–	–
1989	**10-Mo. Average**	**62**	**19**	**13,423**	**133**	**27**	–	–	–
1988	**10-Mo. Average**	**50**	**-31**	**13,242**	**158**	**39**	–	–	–

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S3. Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources[a]										
		Algeria	Libya	Saudi Arabia[c]	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[c]	Total OPEC[d]	Total Arab OPEC[e]
		Thousand Barrels per Day										
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993	915
1974	Average	190	4	461	74	300	469	713	979	88	3,280	752
1975	Average	282	232	715	117	390	280	762	702	122	3,601	1,383
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751	2,963
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637	3,056
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300	2,551
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323	1,848
1982	Average	170	26	552	92	248	35	514	412	97	2,146	854
1983	Average	240	0	337	30	338	48	302	422	144	1,862	632
1984	Average	323	1	325	117	343	10	216	548	166	2,049	819
1985	Average	187	4	168	45	314	27	293	605	187	1,830	472
1986	Average	271	0	685	44	318	19	440	793	265	2,837	1,162
1987	Average	295	0	751	61	285	98	535	804	231	3,060	1,274
1988	January	333	0	849	61	179	[f]1	406	766	540	3,134	1,652
	February	358	0	1,265	79	194	0	506	846	214	3,461	1,883
	March	259	0	937	6	127	0	589	803	352	3,073	1,509
	April	342	0	929	48	166	0	711	833	385	3,413	1,610
	May	320	0	1,041	41	298	0	601	841	360	3,501	1,724
	June	262	0	923	11	184	0	875	850	527	3,632	1,635
	July	225	0	1,076	43	216	0	715	724	590	3,589	1,911
	August	257	0	1,169	0	153	0	623	830	669	3,703	2,036
	September	289	0	1,066	22	242	0	546	824	697	3,685	2,042
	October	326	0	1,244	16	265	0	686	772	552	3,861	2,069
	November	322	0	986	0	240	0	489	779	694	3,510	1,914
	December	312	0	1,289	19	194	0	667	669	524	3,674	2,080
	Average	**300**	**0**	**1,064**	**29**	**205**	**(s)**	**618**	**794**	**510**	**3,520**	**1,839**
1989	January	335	0	1,449	59	218	0	782	941	429	4,212	2,219
	February	310	0	1,290	17	292	0	567	775	593	3,845	2,126
	March	272	0	1,108	64	167	0	702	909	471	3,693	1,805
	April	235	0	1,226	14	128	0	750	831	743	3,927	2,030
	May	272	0	1,155	61	264	0	789	853	630	4,025	1,977
	June	205	0	1,249	17	138	0	864	778	858	4,106	2,164
	July	263	0	1,182	0	113	0	1,094	794	992	4,437	2,308
	August	216	0	1,316	44	115	0	946	834	1,060	4,531	2,453
	September	256	0	1,109	20	113	0	867	914	957	4,236	2,195
	October	250	0	1,158	14	167	0	713	1,004	872	4,177	2,122
	November	323	0	1,342	0	231	0	770	924	762	4,353	2,257
	December	288	0	1,115	26	263	0	915	903	602	4,111	1,905
	Average	**269**	**0**	**1,224**	**28**	**183**	**0**	**815**	**873**	**748**	**4,140**	**2,130**
1990	January	418	0	1,212	37	137	0	830	1,138	1,047	4,819	2,592
	February	280	0	1,557	18	260	0	833	890	753	4,590	2,504
	March	301	0	1,157	17	138	0	1,054	878	824	4,368	2,115
	April	234	0	1,149	9	88	0	969	1,005	742	4,196	2,073
	May	247	0	1,225	73	77	0	1,008	1,087	836	4,554	2,337
	June	333	0	1,137	20	138	0	778	1,070	960	4,435	2,293
	July	308	0	1,369	13	143	0	830	999	1,291	4,954	2,853
	August	349	0	1,189	0	83	0	881	1,013	1,378	4,894	2,716
	September	279	0	1,286	0	111	0	755	1,054	452	3,936	1,915
	9-Mo. Average	**306**	**0**	**1,251**	**21**	**129**	**0**	**883**	**1,016**	**924**	**4,530**	**2,379**
1989	**9-Mo. Average**	**262**	**0**	**1,231**	**33**	**171**	**0**	**820**	**849**	**748**	**4,116**	**2,142**
1988	**9-Mo. Average**	**293**	**0**	**1,027**	**34**	**195**	**(s)**	**619**	**812**	**483**	**3,465**	**1,778**

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[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes petroleum imported into the United States indirectly from members of OPEC, primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

[c] The other members of OPEC are Ecuador, Gabon, Iraq, Kuwait, and Qatar. Prior to January 1988, imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia. From January 1988 forward, those imports are included in imports from "Other OPEC".

[d] "Total OPEC" consists of Ecuador, Gabon, Indonesia, Iran, Nigeria, and Venezuela, as well as the Arab members. Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from "Total OPEC".

[e] The Arab members of OPEC are Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates.

Footnotes continued on following page.

Table S3. Crude Oil and Petroleum Product Imports (Continued)

		Imports from Non-OPEC Sources[b]										
		Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non-OPEC	Total Non-OPEC	Total Imports
		Thousand Barrels per Day										
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	406	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	6,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	Average	88	630	748	188	94	402	42	294	902	3,388	5,437
1985	Average	40	770	816	40	113	310	28	247	873	3,237	5,067
1986	Average	37	807	699	25	125	350	21	244	1,080	3,387	6,224
1987	Average	37	848	655	29	106	352	21	272	1,296	3,617	6,678
1988	January	51	959	808	40	97	313	29	341	1,410	4,047	7,181
	February	79	1,033	710	21	93	334	16	200	1,308	3,794	7,256
	March	47	1,002	745	46	89	461	22	180	1,280	3,871	6,944
	April	26	985	678	43	82	584	29	193	1,227	3,857	7,270
	May	24	1,001	722	27	102	389	20	257	1,426	3,968	7,469
	June	15	1,032	766	31	112	232	13	212	1,194	3,607	7,239
	July	15	972	723	35	96	214	22	215	1,416	3,708	7,297
	August	12	1,009	704	32	97	111	23	172	1,523	3,683	7,386
	September	37	936	843	25	96	149	29	236	1,469	3,820	7,506
	October	13	996	743	17	98	447	21	234	1,398	3,969	7,830
	November	27	1,080	811	72	80	246	15	286	1,587	4,204	7,714
	December	40	990	711	40	125	294	28	372	1,453	4,053	7,727
	Average	32	999	747	36	97	315	22	242	1,392	3,882	7,402
1989	January	53	1,065	809	59	105	215	30	415	1,293	4,043	8,255
	February	24	1,007	756	44	92	221	24	369	1,649	4,186	8,032
	March	41	961	667	52	82	174	38	324	1,424	3,763	7,456
	April	55	877	1,002	14	117	148	24	407	1,507	4,151	8,078
	May	29	901	808	32	68	202	46	379	1,288	3,753	7,778
	June	28	921	688	34	143	181	32	363	1,481	3,871	7,977
	July	32	849	758	49	89	328	39	331	1,458	3,932	8,369
	August	19	911	806	43	101	370	21	239	1,519	4,029	8,560
	September	8	949	721	35	95	191	33	190	1,545	3,766	8,002
	October	44	857	837	38	71	309	32	180	1,756	4,124	8,301
	November	41	911	743	72	91	165	42	279	1,645	3,988	8,341
	December	29	973	610	29	81	78	24	377	1,266	3,468	7,579
	Average	34	931	767	42	94	215	32	321	1,484	3,921	8,061
1990	January	74	952	789	9	109	219	35	409	1,732	4,328	9,147
	February	74	919	722	27	89	74	32	323	1,456	3,716	8,306
	March	35	823	812	10	103	273	32	264	1,205	3,557	7,925
	April	51	908	486	29	114	274	33	283	1,404	3,562	7,758
	May	29	994	778	20	88	347	38	285	1,604	4,184	8,738
	June	36	927	912	21	118	249	27	299	1,666	4,255	8,690
	July	25	882	695	30	107	211	35	252	1,701	3,939	8,893
	August	40	941	773	41	108	170	29	230	1,331	3,665	8,558
	September	45	916	871	33	89	155	20	240	1,031	3,399	7,336
	9-Mo. Average	45	918	758	24	103	221	31	287	1,460	3,847	8,378
1989	9-Mo. Average	32	937	779	40	99	226	32	335	1,460	3,941	8,057
1988	9-Mo. Average	34	992	744	33	96	311	23	223	1,382	3,818	7,263

Footnotes continued.

[f] A small amount of Iranian crude oil entered the United States (defined in this publication as the 50 States and the District of Columbia) in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S5. Finished Motor Gasoline Supply and Disposition

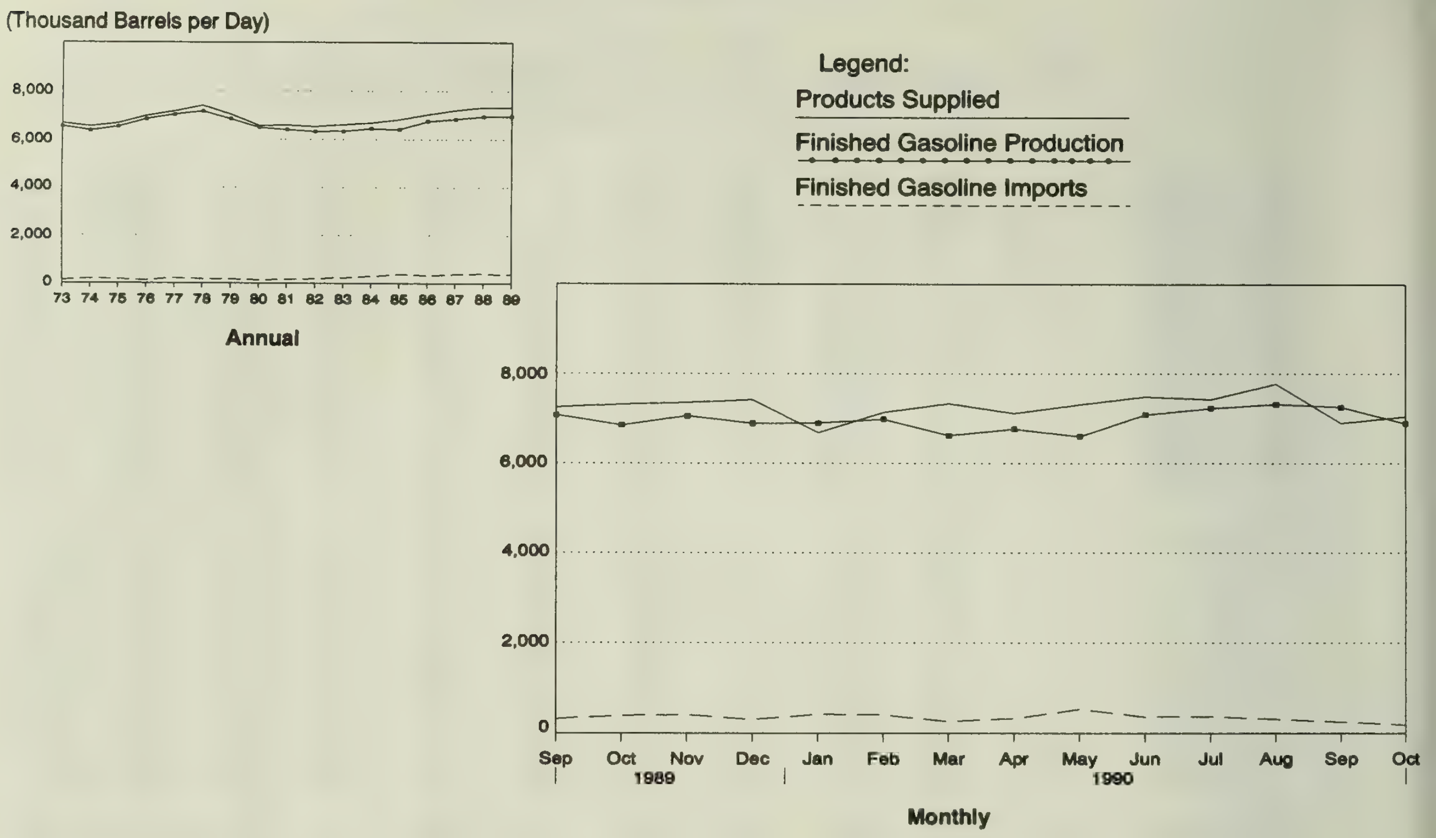
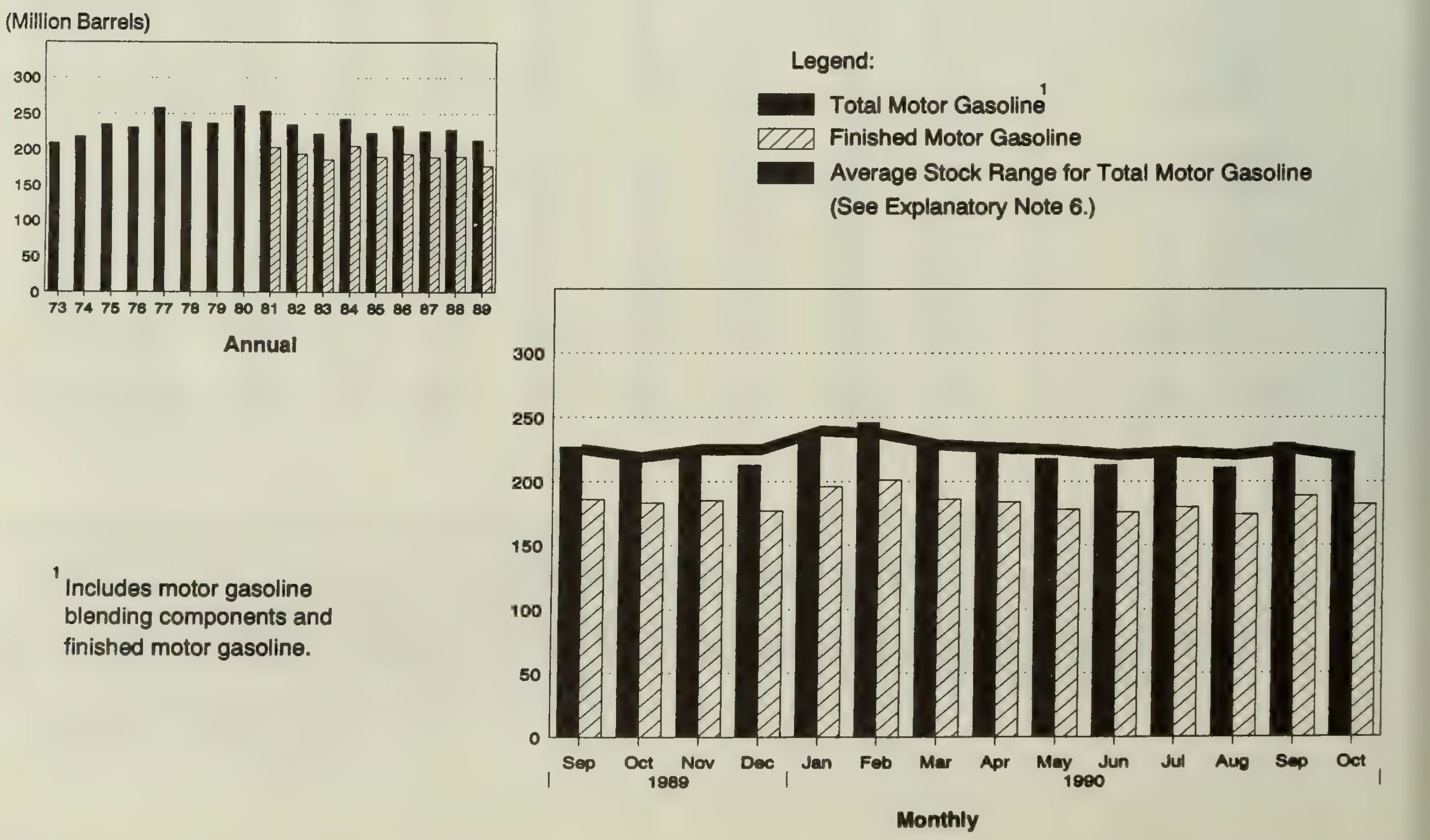


Figure S6. Motor Gasoline Ending Stocks



[1] Includes motor gasoline blending components and finished motor gasoline.

Table S4. Finished Motor Gasoline Supply and Disposition

		Supply		Disposition					Ending Stocks[a]	
						Product Supplied				
		Total Production	Imports[b]	Stock Change[b,c]	Exports	Total[d]	Unleaded	Unleaded	Total Motor Gasoline[e]	Finished Motor Gasoline
		Thousand Barrels per Day						Percent of Total	Million Barrels	
1973	**Average**	**6,535**	**134**	**-9**	**4**	**6,674**	--	--	**209**	--
1974	**Average**	**6,360**	**204**	**24**	**2**	**6,537**	—	--	**[f] 218**	--
1975	**Average**	**6,520**	**184**	**[f] 28**	**2**	**6,675**	--	--	**235**	--
1976	**Average**	**6,841**	**131**	**-10**	**3**	**6,978**	--	--	**231**	--
1977	**Average**	**7,033**	**217**	**72**	**2**	**7,177**	**1,976**	**27.5**	**258**	--
1978	**Average**	**7,169**	**190**	**-54**	**1**	**7,412**	**2,521**	**34.0**	**238**	--
1979	**Average**	**6,852**	**181**	**-2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	--
1980	**Average**	**6,506**	**140**	**68**	**1**	**6,579**	**3,067**	**46.6**	**[f] 261**	--
1981	**Average[g]**	**6,405**	**157**	**[f] -28**	**2**	**6,588**	**3,264**	**49.5**	**253**	--
1982	**Average**	**6,338**	**197**	**-25**	**20**	**6,539**	**3,409**	**52.1**	**[f] 235**	--
1983	**Average**	**6,340**	**247**	**[f] -45**	**10**	**6,622**	**3,647**	**55.1**	**222**	**186**
1984	**Average**	**6,453**	**299**	**54**	**6**	**6,693**	**3,987**	**59.6**	**243**	**205**
1985	**Average**	**6,419**	**381**	**-41**	**10**	**6,831**	**4,406**	**64.5**	**223**	**190**
1986	**Average**	**6,752**	**326**	**11**	**33**	**7,034**	**4,854**	**69.0**	**233**	**194**
1987	**Average**	**6,841**	**384**	**-15**	**35**	**7,206**	**5,470**	**75.9**	**226**	**189**
1988	January	6,730	357	387	8	6,693	5,395	80.6	240	201
	February	6,736	397	75	18	7,039	5,607	79.7	241	203
	March	6,715	349	-277	18	7,323	5,894	80.5	232	194
	April	6,907	399	-142	18	7,430	5,991	80.6	227	190
	May	6,851	437	-43	28	7,303	5,861	80.3	226	189
	June	6,983	428	-465	59	7,817	6,336	81.1	210	175
	July	7,159	482	148	12	7,482	6,144	82.1	215	179
	August	7,209	494	131	15	7,556	6,232	82.5	220	184
	September	6,948	443	-28	16	7,404	6,115	82.6	221	183
	October	6,858	352	-75	13	7,271	5,988	82.4	218	180
	November	7,060	451	118	15	7,379	6,157	83.4	221	184
	December	7,303	277	192	45	7,344	6,220	84.7	228	190
	Average	**6,956**	**405**	**3**	**22**	**7,336**	**5,995**	**81.7**	--	--
1989	January	6,937	353	512	33	6,745	5,754	85.3	249	206
	February	6,650	423	-70	24	7,119	6,141	86.3	248	204
	March	6,612	381	-471	43	7,421	6,380	86.0	230	189
	April	6,811	370	-22	46	7,157	6,248	87.3	227	188
	May	6,894	355	-163	31	7,381	6,454	87.5	223	183
	June	7,275	386	-180	60	7,780	6,864	88.2	216	178
	July	7,360	383	390	57	7,296	6,509	89.2	229	190
	August	7,155	360	-260	58	7,717	6,934	89.8	221	182
	September	7,069	320	118	31	7,240	6,443	89.0	227	186
	October	6,845	389	-97	29	7,302	6,642	91.0	222	183
	November	7,046	406	81	18	7,353	6,756	91.9	224	185
	December	6,884	306	-257	37	7,410	6,927	93.5	213	177
	Average	**6,963**	**389**	**-35**	**39**	**7,328**	**6,507**	**88.8**	—	--
1990	January	6,889	417	599	31	6,675	6,272	94.0	236	196
	February	6,978	407	204	53	7,129	6,657	93.4	246	201
	March	6,612	265	-493	45	7,325	6,881	93.9	228	186
	April	6,764	327	-52	28	7,116	6,696	94.1	224	184
	May	6,599	535	-196	25	7,304	6,884	94.2	218	178
	June	7,084	361	-86	52	7,478	7,059	94.4	213	176
	July	7,230	372	146	41	7,415	7,012	94.6	219	180
	August	7,315	313	-220	77	7,771	7,360	94.7	211	174
	September*	R 7,251	R 254	R 505	R 103	R 6,897	R 6,574	95.3	R 230	R 189
	October**	E *6,886*	E *185*	E *-20*	E 57	E *7,034*	E *6,691*	E *95.1*	E *222*	E *182*
	10-Mo. Average	**E 6,960**	**E 343**	**E 36**	**E 51**	**E 7,216**	**E 6,810**	**E 94.4**	--	--
1989	**10-Mo. Average**	**6,963**	**372**	**-24**	**41**	**7,317**	**6,439**	**88.0**	--	--
1988	**10-Mo. Average**	**6,910**	**414**	**-28**	**20**	**7,332**	**5,957**	**81.2**	--	--

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[a] Stocks are totals as of end of period.
[b] Beginning in 1981, excludes blending components.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes gasohol.
[e] Includes motor gasoline blending components.
[f] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.
[g] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.
* See Explanatory Note 5.
** Italics denote estimates based upon preliminary data. See Explanatory Note 4.
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Figure S7. Distillate Fuel Oil Supply and Disposition

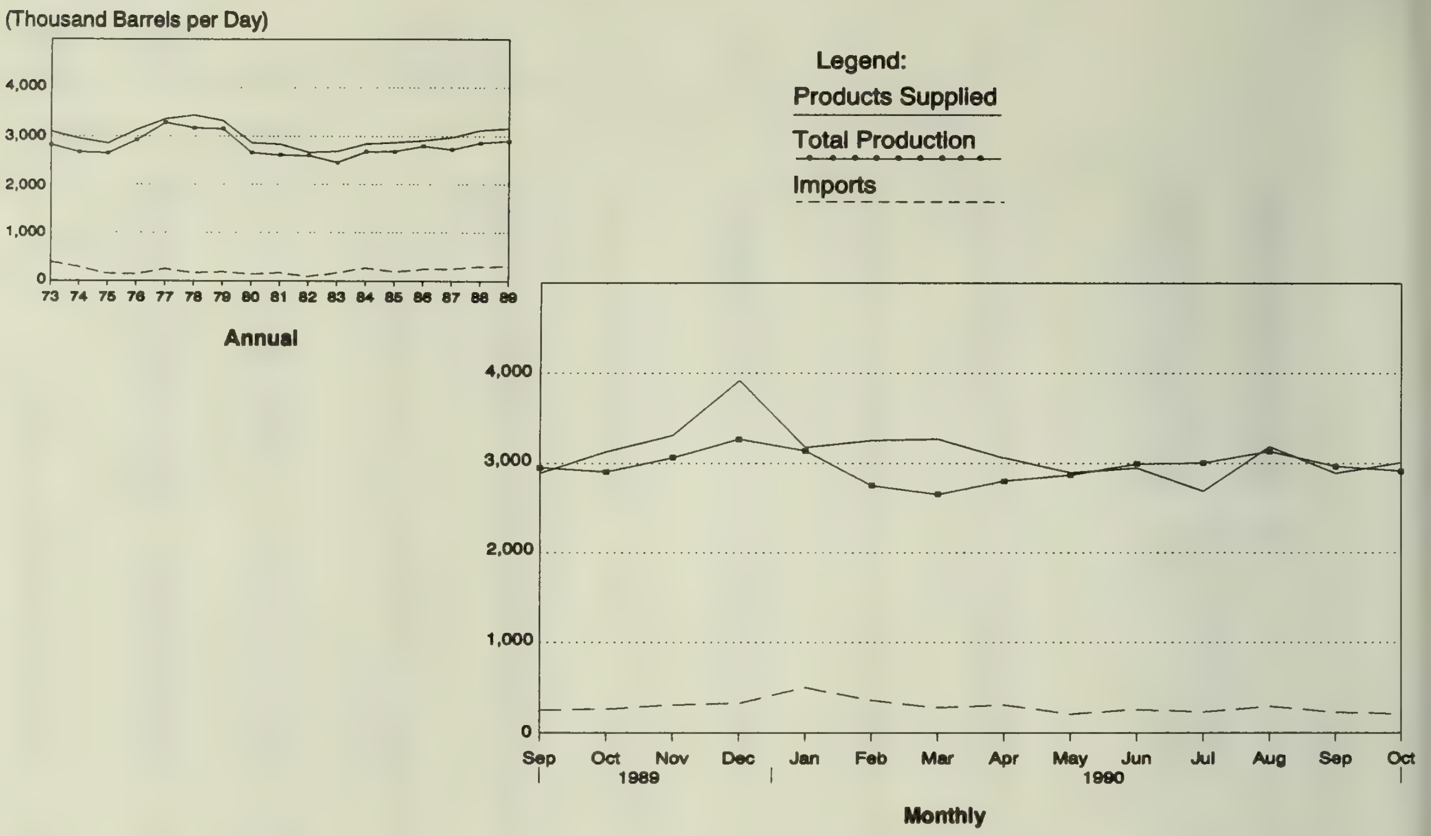

Figure S8. Distillate Fuel Oil Ending Stocks

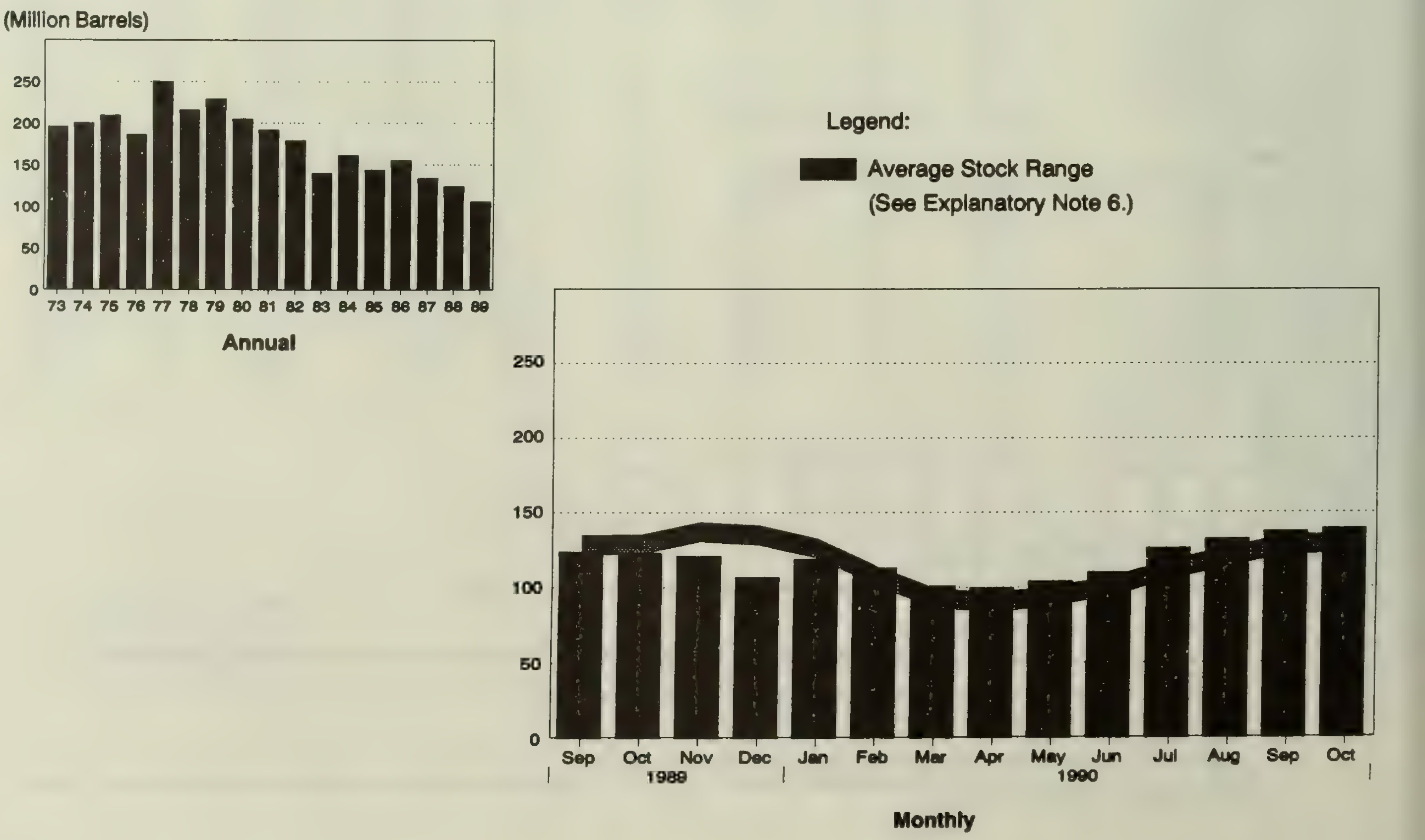

Table S5. Distillate Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	Average	2,822	392	2	115	9	3,092	196
1974	Average	2,669	289	2	9	2	2,948	d 200
1975	Average	2,654	155	2	d -40	1	2,851	209
1976	Average	2,924	146	1	-62	1	3,133	186
1977	Average	3,278	250	1	176	1	3,352	250
1978	Average	3,167	173	1	-93	3	3,432	216
1979	Average	3,153	193	1	34	3	3,311	229
1980	Average	2,662	142	1	-64	3	2,866	d 205
1981	Average[e]	2,613	173	10	d -38	5	2,829	192
1982	Average	2,606	93	10	-35	74	2,671	d 179
1983	Average	2,456	174	--	d -124	64	2,690	140
1984	Average	2,681	272	--	57	51	2,845	161
1985	Average	2,687	200	--	-48	67	2,868	144
1986	Average	2,798	247	--	31	100	2,914	155
1987	Average	2,731	255	--	-56	66	2,976	134
1988	January	3,010	424	--	-206	82	3,558	128
	February	2,667	383	--	-614	107	3,557	110
	March	2,706	247	--	-660	74	3,539	90
	April	2,867	210	--	171	42	2,864	95
	May	2,936	253	--	320	74	2,795	105
	June	2,893	222	--	185	76	2,854	110
	July	2,784	222	--	308	58	2,640	120
	August	2,848	279	--	185	70	2,873	126
	September	2,778	307	--	192	72	2,821	131
	October	2,827	336	--	-103	48	3,218	128
	November	2,909	327	--	19	34	3,183	129
	December	3,068	409	--	-171	87	3,560	124
	Average	**2,859**	**302**	**--**	**-30**	**69**	**3,122**	--
1989	January	2,974	346	--	-93	110	3,303	121
	February	2,797	331	--	-463	164	3,427	108
	March	2,713	439	--	-352	76	3,428	97
	April	2,789	301	--	60	56	2,975	99
	May	2,750	290	--	35	51	2,954	100
	June	2,809	233	--	(s)	39	3,002	100
	July	2,848	334	--	498	89	2,596	115
	August	2,907	254	--	41	154	2,966	116
	September	2,952	249	--	231	81	2,889	123
	October	2,906	261	--	-50	90	3,127	122
	November	3,063	307	--	-64	123	3,311	120
	December	3,266	324	--	-454	130	3,914	106
	Average	**2,899**	**306**	**--**	**-49**	**97**	**3,157**	--
1990	January	3,136	501	--	398	62	3,177	118
	February	2,753	357	--	-204	65	3,250	112
	March	2,655	280	--	-405	75	3,265	100
	April	2,802	308	--	-8	59	3,059	99
	May	2,873	207	--	109	75	2,897	103
	June	2,995	257	--	219	84	2,949	109
	July	3,006	229	--	512	30	2,693	125
	August	3,131	292	--	188	51	3,184	131
	September*	R 2,967	R 226	--	R 180	R 123	R 2,890	136
	October**	E *2,916*	E *209*	--	E *75*	E *39*	E *3,012*	E *138*
	10-Mo. Average	E **2,925**	E **286**	**--**	E **109**	E **66**	E **3,036**	--
1989	**10-Mo. Average**	**2,845**	**304**	**--**	**-6**	**91**	**3,064**	--
1988	**10-Mo. Average**	**2,833**	**288**	**--**	**-20**	**70**	**3,071**	--

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[a] Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S9. Residual Fuel Oil Supply and Disposition

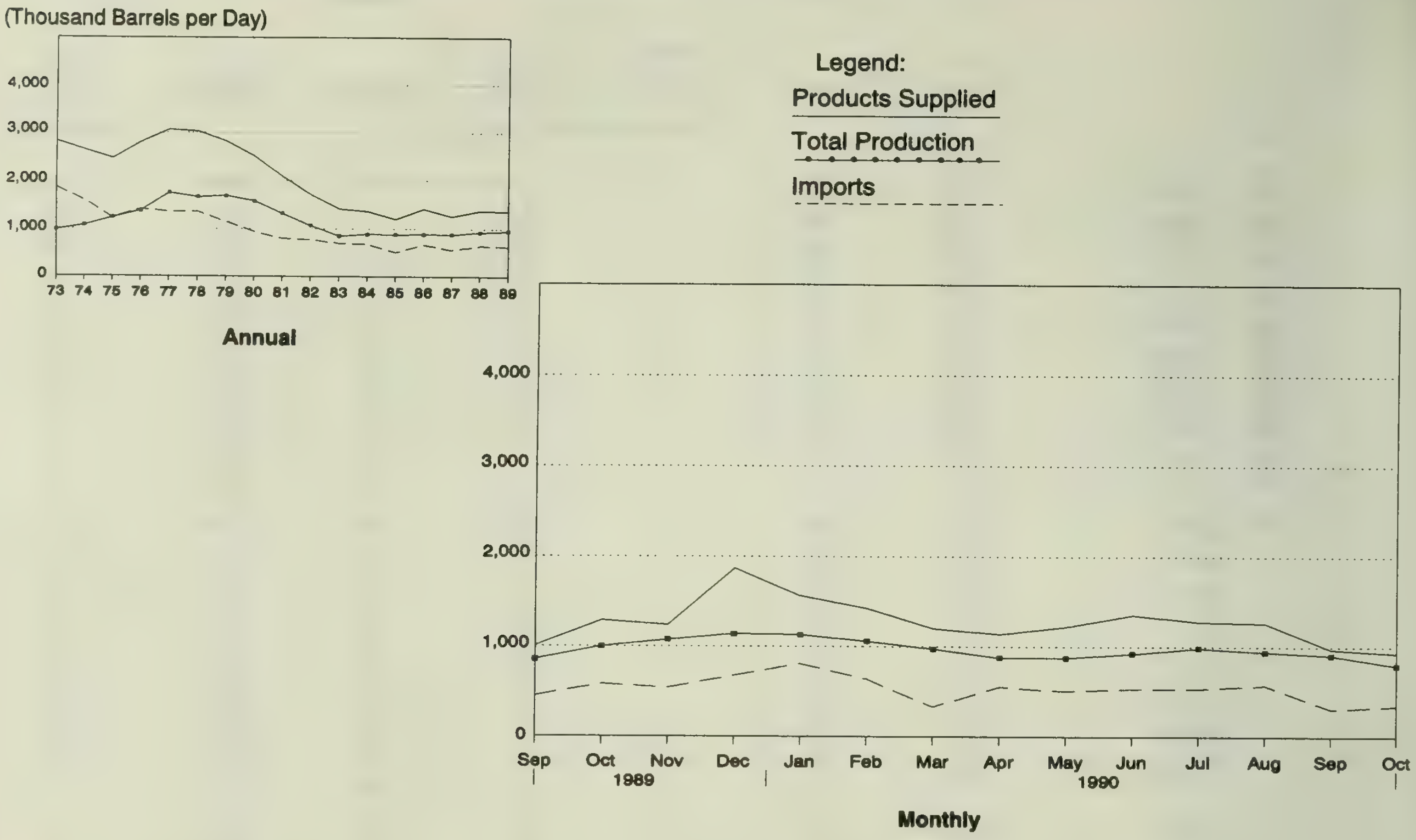

Figure S10. Residual Fuel Oil Ending Stocks

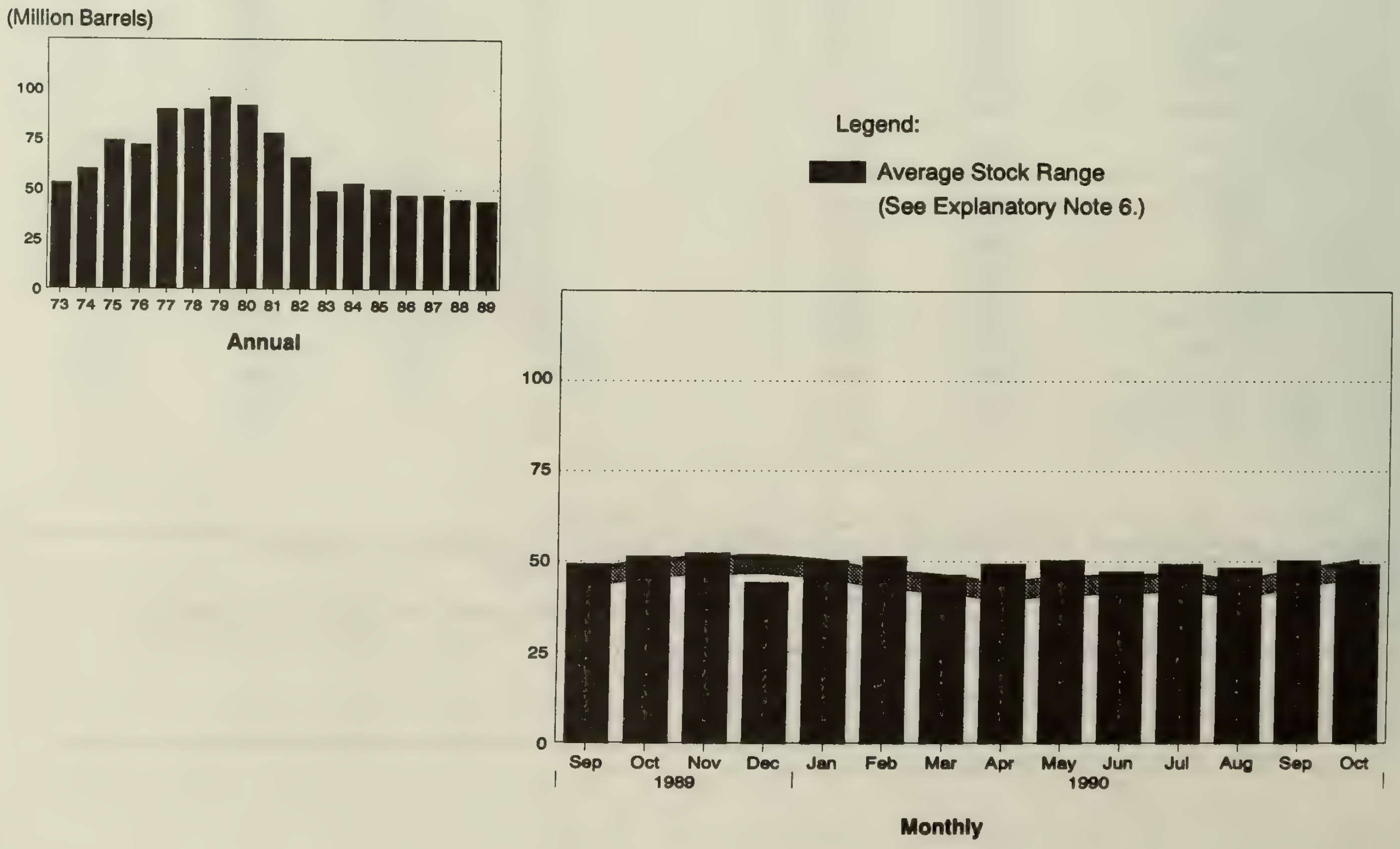

Table S6. Residual Fuel Oil Supply and Disposition

		Supply			Disposition			
		Total Production	Imports	Crude Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	971	1,853	17	-5	23	2,822	53
1974	**Average**	1,070	1,587	13	17	14	2,639	[d] 60
1975	**Average**	1,235	1,223	15	[d] -2	15	2,462	74
1976	**Average**	1,377	1,413	17	-5	12	2,801	72
1977	**Average**	1,754	1,359	13	48	6	3,071	90
1978	**Average**	1,667	1,355	13	1	13	3,023	90
1979	**Average**	1,687	1,151	12	15	9	2,826	96
1980	**Average**	1,580	939	12	-10	33	2,508	[d] 92
1981	**Average**[e]	1,321	800	48	[d] -37	118	2,088	78
1982	**Average**	1,070	776	48	-32	209	1,716	[d] 66
1983	**Average**	852	699	--	[d] -55	185	1,421	49
1984	**Average**	891	681	--	12	190	1,369	53
1985	**Average**	882	510	--	-7	197	1,202	50
1986	**Average**	889	669	--	-8	147	1,418	47
1987	**Average**	885	565	--	(s)	186	1,264	47
1988	January	1,002	805	--	-44	190	1,661	46
	February	994	901	--	-33	229	1,698	45
	March	948	650	--	-43	165	1,476	44
	April	960	495	--	-33	170	1,318	43
	May	862	432	--	94	263	938	46
	June	880	336	--	-117	249	1,083	42
	July	906	479	--	-37	206	1,217	41
	August	866	581	--	-97	225	1,320	38
	September	852	698	--	220	100	1,230	45
	October	852	603	--	-68	181	1,343	42
	November	916	785	--	51	146	1,504	44
	December	1,069	975	--	20	271	1,754	45
	Average	926	644	--	-8	200	1,378	--
1989	January	949	909	--	84	151	1,623	47
	February	930	877	--	-58	146	1,719	46
	March	937	706	--	-128	220	1,551	42
	April	904	681	--	-52	236	1,401	40
	May	934	538	--	77	276	1,119	42
	June	953	533	--	54	208	1,223	44
	July	862	556	--	-44	176	1,286	43
	August	903	501	--	58	225	1,121	45
	September	856	454	--	162	137	1,010	49
	October	1,001	583	--	50	243	1,292	51
	November	1,075	543	--	48	330	1,240	52
	December	1,140	680	--	-275	226	1,870	44
	Average	954	629	--	-2	215	1,370	--
1990	January	1,129	809	--	191	186	1,561	50
	February	1,060	640	--	63	214	1,424	51
	March	974	334	--	-171	277	1,202	46
	April	880	555	--	93	200	1,142	49
	May	877	507	--	21	141	1,222	50
	June	926	536	--	-96	207	1,350	47
	July	987	535	--	72	171	1,279	49
	August	945	574	--	-25	280	1,263	48
	September*	R 909	R 311	--	R 43	R 200	R 977	R 50
	October**	E *794*	E *345*	--	E *-15*	E *217*	E *937*	E *49*
	10-Mo. Average	E 948	E 514	--	E 17	E 209	E 1,235	--
1989	**10-Mo. Average**	923	632	--	21	203	1,332	--
1988	**10-Mo. Average**	912	597	--	-16	198	1,327	--

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[a] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 7.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. See Explanatory Note 11.

[e] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

* See Explanatory Note 5.

** Italics denote estimates based upon preliminary data. See Explanatory Note 4.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Figure S11. Liquefied Petroleum Gases Supply and Disposition

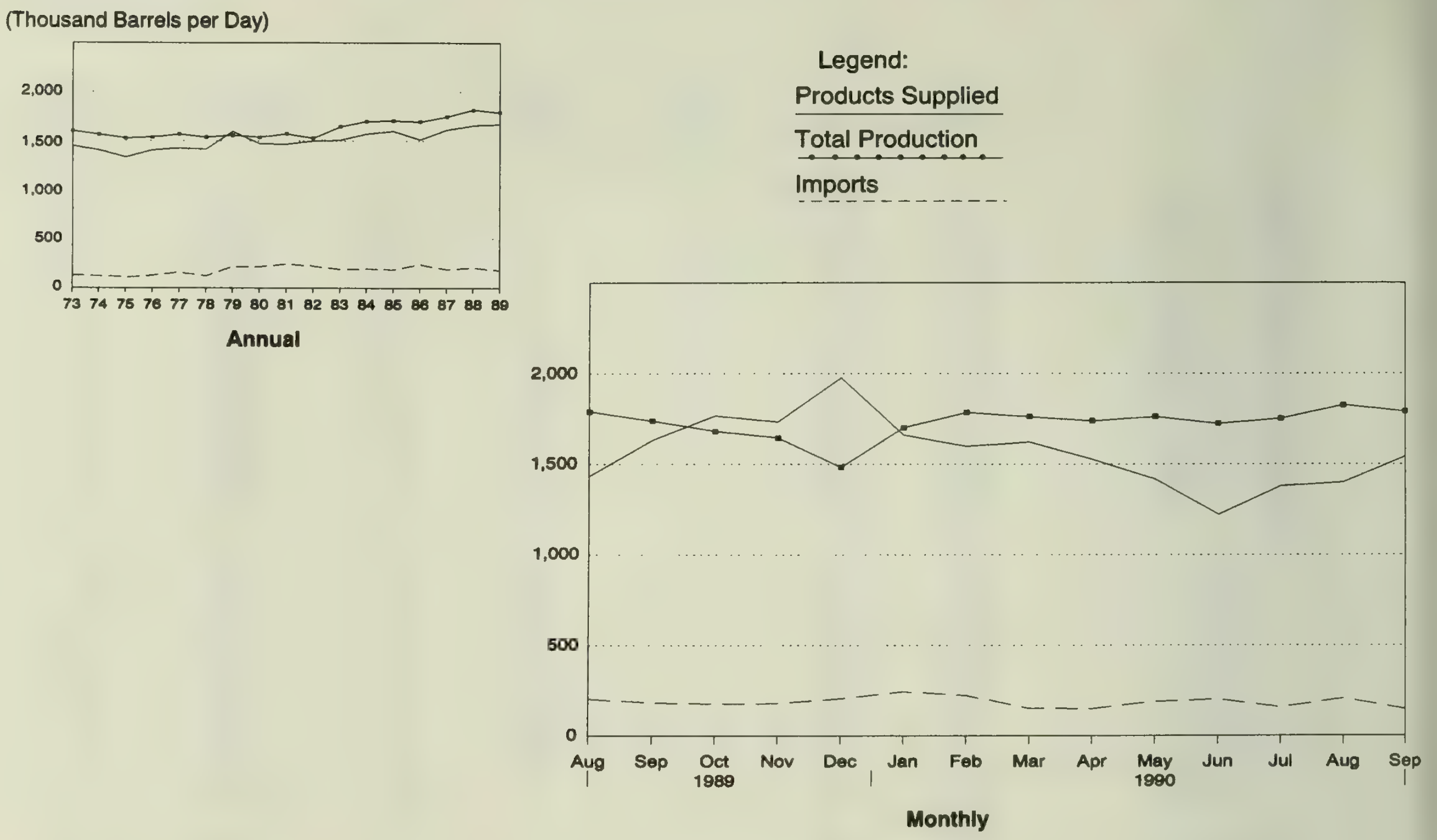

Figure S12. Liquefied Petroleum Gases Ending Stocks

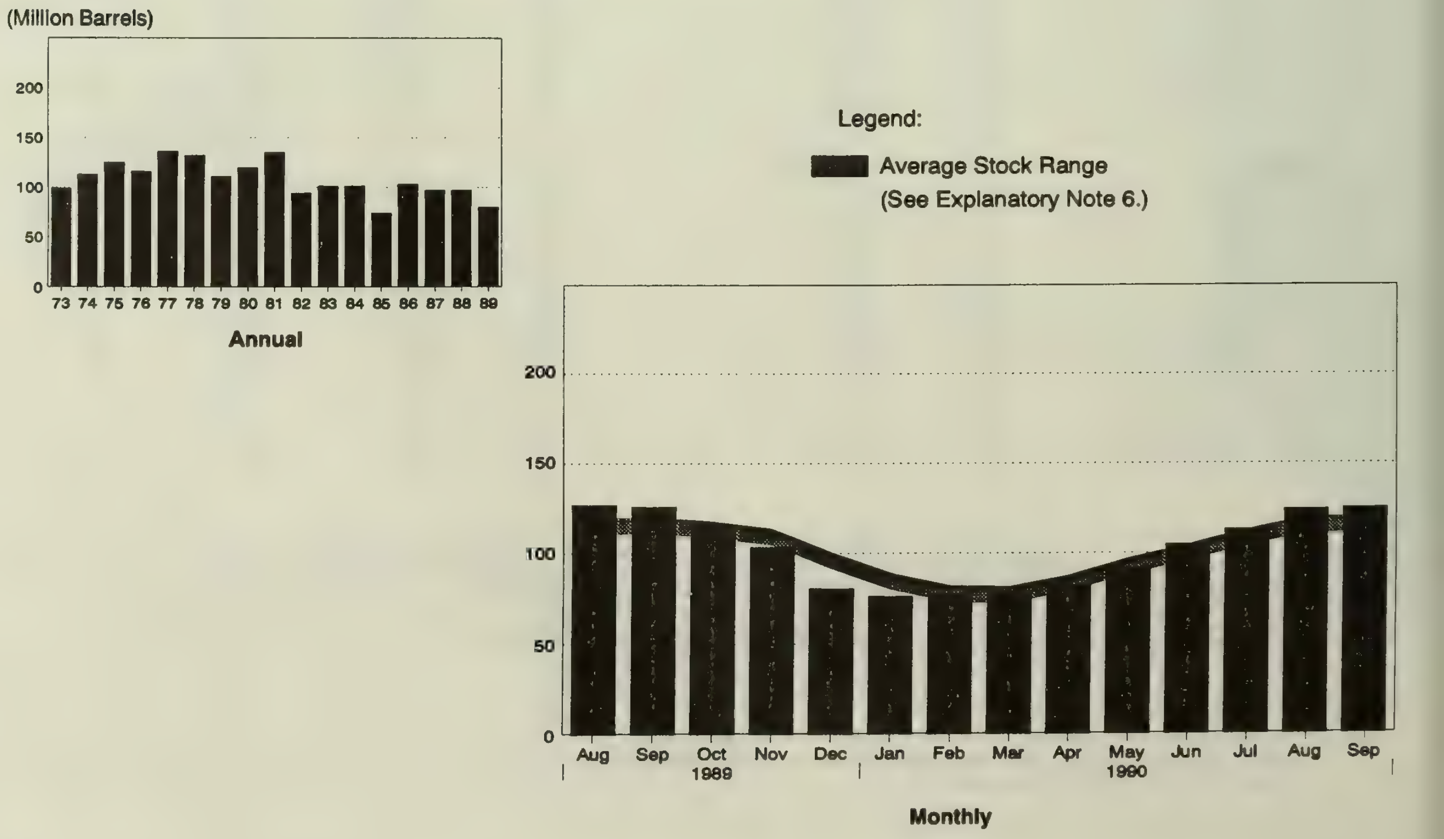

Table S7. Liquefied Petroleum Gases[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	1,600	132	35	220	27	1,449	99
1974	**Average**	1,565	123	38	220	25	1,406	[d] 113
1975	**Average**	1,527	112	[d] 35	246	26	1,333	125
1976	**Average**	1,535	130	-24	260	25	1,404	116
1977	**Average**	1,566	161	55	233	18	1,422	136
1978	**Average**	1,537	123	-12	239	20	1,413	132
1979	**Average**	1,556	217	-70	236	15	1,592	111
1980	**Average**	1,535	216	27	233	21	1,469	[d] 120
1981	**Average**	1,571	244	[d] 18	289	42	1,466	135
1982	**Average**	1,528	226	-111	300	65	1,499	[d] 94
1983	**Average**	1,642	190	[d] -4	253	73	1,509	[d] 101
1984	**Average**	1,697	195	[d] -19	291	48	1,572	101
1985	**Average**	1,704	187	-75	304	62	1,599	74
1986	**Average**	1,695	242	80	302	42	1,512	103
1987	**Average**	1,748	190	-15	304	38	1,612	97
1988	January	1,734	226	-566	383	44	2,099	80
	February	1,770	245	-328	366	47	1,929	70
	March	1,819	165	-50	292	36	1,707	68
	April	1,806	205	361	277	43	1,329	79
	May	1,817	165	343	277	37	1,324	90
	June	1,814	144	331	256	38	1,333	100
	July	1,842	233	380	248	35	1,412	112
	August	1,847	241	287	262	50	1,490	121
	September	1,841	194	20	274	43	1,698	121
	October	1,872	216	-47	318	56	1,761	120
	November	1,835	258	-206	445	71	1,782	114
	December	1,811	222	-522	461	85	2,010	97
	Average	**1,817**	**209**	**1**	**321**	**49**	**1,656**	–
1989	January	1,885	239	-335	422	19	2,018	87
	February	1,798	260	-333	328	31	2,032	78
	March	1,909	150	-85	274	43	1,827	75
	April	1,950	121	294	242	27	1,507	84
	May	1,943	110	428	226	43	1,357	97
	June	1,824	155	269	254	35	1,422	105
	July	1,850	192	407	247	45	1,343	118
	August	1,787	202	272	245	40	1,433	126
	September	1,737	182	-46	303	31	1,631	125
	October	1,679	176	-313	371	31	1,766	115
	November	1,643	179	-389	446	33	1,732	103
	December	1,483	205	-749	424	37	1,975	80
	Average	**1,791**	**181**	**-47**	**315**	**35**	**1,668**	–
1990	January	1,700	245	-174	416	44	1,660	76
	February	1,784	223	20	346	42	1,599	77
	March	1,760	152	42	205	44	1,620	78
	April	1,738	148	136	200	25	1,525	82
	May	1,760	189	279	216	36	1,417	91
	June	1,722	201	451	220	28	1,223	104
	July	1,750	156	259	230	36	1,379	112
	August	1,823	206	334	253	43	1,400	123
	September*	1,788	147	55	298	41	1,540	124
	9-Mo. Average	**1,758**	**185**	**157**	**264**	**38**	**1,484**	–
1989	**9-Mo. Average**	**1,854**	**179**	**101**	**282**	**35**	**1,615**	–
1988	**9-Mo. Average**	**1,810**	**202**	**88**	**293**	**41**	**1,590**	–

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[a] Includes ethane, propane, normal butane, and isobutane. Beginning in January 1984, unfractionated stream is reported by individual product.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations.

See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Table S8. Other Petroleum Products[a] Supply and Disposition

		Supply		Disposition				
		Total Production	Imports	Stock Change[b]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[c]
		Thousand Barrels per Day						Million Barrels
1973	**Average**	**3,693**	**502**	**9**	**750**	**166**	**3,270**	**208**
1974	**Average**	**3,558**	**432**	**28**	**665**	**174**	**3,123**	**[d] 218**
1975	**Average**	**3,418**	**277**	**[d] -4**	**537**	**160**	**3,002**	**219**
1976	**Average**	**3,643**	**206**	**5**	**524**	**175**	**3,145**	**220**
1977	**Average**	**3,912**	**205**	**27**	**514**	**165**	**3,410**	**230**
1978	**Average**	**4,046**	**166**	**-14**	**492**	**167**	**3,568**	**225**
1979	**Average**	**4,153**	**195**	**37**	**352**	**209**	**3,749**	**238**
1980	**Average**	**3,956**	**210**	**23**	**311**	**198**	**3,634**	**[d] 247**
1981	**Average**	**3,739**	**226**	**[d] -46**	**723**	**199**	**3,088**	**282**
1982	**Average**	**3,453**	**334**	**-80**	**787**	**211**	**2,869**	**[d] 253**
1983	**Average**	**3,460**	**411**	**[d] -6**	**712**	**242**	**2,923**	**[d] 256**
1984	**Average**	**3,632**	**565**	**[d] -23**	**791**	**245**	**3,183**	**240**
1985	**Average**	**3,721**	**588**	**17**	**886**	**240**	**3,166**	**246**
1986	**Average**	**3,997**	**561**	**10**	**888**	**308**	**3,353**	**250**
1987	**Average**	**4,080**	**610**	**-1**	**829**	**289**	**3,572**	**250**
1988	January	3,942	706	136	812	354	3,347	254
	February	3,905	680	31	753	318	3,484	255
	March	4,147	666	282	687	328	3,515	264
	April	4,010	794	87	851	288	3,577	266
	May	4,071	843	335	501	274	3,803	277
	June	4,265	787	-43	777	379	3,939	276
	July	4,315	781	21	831	329	3,915	276
	August	4,413	701	-199	796	302	4,215	270
	September	4,245	651	-159	850	323	3,882	265
	October	4,163	771	-40	762	268	3,944	264
	November	4,068	823	43	818	303	3,728	265
	December	4,155	613	-429	1,153	392	3,653	252
	Average	**4,143**	**735**	**6**	**799**	**321**	**3,751**	**--**
1989	January	4,198	746	396	706	311	3,532	264
	February	3,957	837	191	726	302	3,574	270
	March	4,067	745	112	660	321	3,718	273
	April	3,953	854	133	808	306	3,561	277
	May	4,131	755	221	688	260	3,718	284
	June	4,375	695	-206	838	389	4,049	278
	July	4,454	690	-69	955	344	3,913	276
	August	4,436	677	-215	893	328	4,107	269
	September	4,428	770	112	737	343	4,005	272
	October	4,191	705	32	730	337	3,796	273
	November	4,122	736	-43	900	351	3,650	272
	December	3,763	600	-601	918	391	3,655	253
	Average	**4,174**	**733**	**4**	**797**	**332**	**3,774**	**--**
1990	January	4,014	970	176	699	255	3,854	259
	February	4,255	819	495	645	347	3,587	273
	March	4,115	769	144	787	306	3,646	278
	April	4,125	679	-195	861	337	3,800	272
	May	4,235	861	292	531	300	3,973	281
	June	4,267	922	-141	904	345	4,082	277
	July	4,581	789	30	954	327	4,059	278
	August	4,519	741	-370	997	334	4,299	266
	September*	4,560	743	117	753	312	4,120	270
	9-Mo. Average	**4,297**	**810**	**58**	**794**	**318**	**3,939**	**--**
1989	**9-Mo. Average**	**4,225**	**751**	**74**	**779**	**323**	**3,799**	**--**
1988	**9-Mo. Average**	**4,147**	**735**	**56**	**761**	**322**	**3,743**	**--**

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[a] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.

[c] Stocks are totals as of end of period.

[d] In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. See Explanatory Note 11.

* See Explanatory Note 5.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources of Summary Statistics

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual.*

2. 1977 through 1980: U.S. Department of Energy, Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report.*

3. 1981 through 1989: EIA, *Petroleum Supply Annual.*

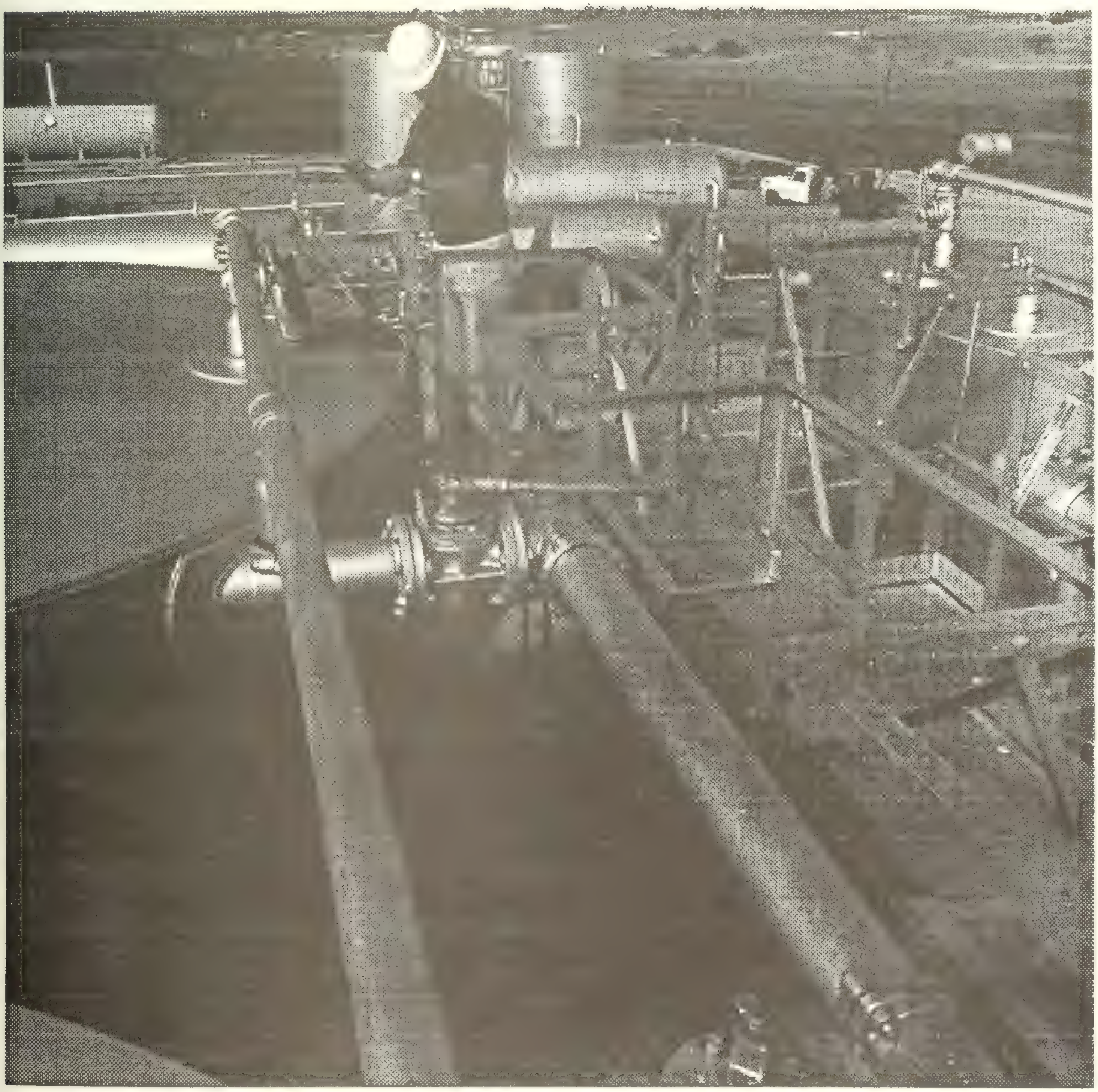
4. January 1990 through September 1990: Detailed Statistics in appropriate issues of the *Petroleum Supply Monthly.* (See Explanatory Note 5.)

5. October 1990: Estimates based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 4.)

6. January 1990 through October 1990: Domestic crude oil production estimate based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (See Explanatory Note 8.)

Note: Additional source information by table is available in Appendix B (Explanatory Notes 5 and 6).

Detailed Statistics



At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, September 1990

	Commodity	Current Month		Year to Date	
		Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
	Crude Oil				
	Field Production				
(1)	Alaska	E 51,051	E 1,702	E 479,879	E 1,758
(2)	Lower 48 States	E 163,956	E 5,465	E 1,508,931	E 5,527
(3)	**Total U.S.**	**E 215,007**	**E 7,167**	**E 1,988,810**	**E 7,285**
	Net Imports				
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	169,678	5,656	1,680,929	6,157
(5)	SPR Imports	0	0	9,772	36
(6)	Exports	2,051	68	27,356	100
(7)	**Imports (Net Including SPR)**	**167,627**	**5,588**	**1,663,345**	**6,093**
	Other Sources				
(8)	SPR Stock Change (Withdrawal (+), Addition (-))	-5	(s)	-9,754	-36
(9)	Other Stock Change (Withdrawal (+), Addition (-))	26,523	884	-1,735	-6
(10)	Product Supplied and Losses	-414	-14	-7,466	-27
(11)	Unaccounted for[a]	14,413	480	81,477	298
(12)	**Total Other Sources**	**40,517**	**1,351**	**62,522**	**229**
(13)	**Crude Input to Refineries** (13) = (3) + (7) + (12)	**423,151**	**14,105**	**3,714,677**	**13,607**
	Natural Gas Liquids (NGL)				
(14)	Field Production	47,615	1,587	414,361	1,518
(15)	Net Imports[b]	103	3	1,819	7
(16)	Stock Change (Withdrawal (+), Addition (-))[b]	1,227	41	717	3
(17)	**Total NGL Supply**	**48,945**	**1,631**	**416,897**	**1,527**
	Other Liquids				
	Unfinished Oils and Gasoline Blending Components, Total				
(18)	Stock Change (Withdrawal (+), Addition (-))	-5,445	-182	-12,321	-45
(19)	Imports	13,372	446	124,866	457
(20)	Other Hydrocarbons and Alcohol New Supply (Field Production)	1,953	65	19,206	70
(21)	Refinery Processing Gain[a]	19,970	666	180,600	662
(22)	Crude Oil Product Supplied	412	14	7,450	27
(23)	**Total Other Liquids** (23) = (18) through (22)	**30,262**	**1,009**	**319,801**	**1,171**
(24)	**Total Production of Products** (24) = (13) + (17) + (23)	**502,358**	**16,745**	**4,451,375**	**16,305**
	Net Imports of Refined Products				
(25)	Imports (Gross)	36,891	1,230	469,335	1,719
(26)	Exports	23,331	778	186,203	682
(27)	**Imports (Net)**	**13,560**	**452**	**283,132**	**1,037**
(28)	**Total New Supply of Products** (28) = (24) + (27)	**515,917**	**17,197**	**4,734,507**	**17,343**
(29)	Refined Products Stock Change (Withdrawal (+), Addition (-))	-22,808	-760	-95,114	-348
(30)	**Total Petroleum Products Supplied for Domestic Use** (30) = (28) + (29)	**493,109**	**16,437**	**4,639,393**	**16,994**
(31)	Finished Motor Gasoline	206,905	6,897	1,975,541	7,236
(32)	Distillate Fuel Oil	86,701	2,890	829,629	3,039
(33)	Residual Fuel Oil	29,305	977	346,304	1,269
(34)	Liquefied Petroleum Gases	46,201	1,540	405,208	1,484
(35)	Other[c]	123,585	4,120	1,075,261	3,939
(36)	Crude Oil	412	14	7,450	27
(37)	**Total Products Supplied** (37) = (31) through (36)	**493,109**	**16,437**	**4,639,393**	**16,994**
	Ending Stocks, All Oils				
(38)	Crude Oil (Excluding SPR)	343,044	--	343,044	--
(39)	Strategic Petroleum Reserve	589,611	--	589,611	--
(40)	Finished Motor Gasoline	188,697	--	188,697	--
(41)	Distillate Fuel Oil	136,497	--	136,497	--
(42)	Residual Fuel Oil	49,534	--	49,534	--
(43)	Liquefied Petroleum Gases	124,291	--	124,291	--
(44)	Other[c]	269,584	--	269,584	--
(45)	**Total Stocks** (45) = (38) through (44)	**1,701,258**	--	**1,701,258**	--

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[a] Unaccounted for crude oil and refinery processing gain are balancing items. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] Includes products in the pentanes plus category only.

[c] Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 2. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply				Disposition						
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	Ending Stocks
Crude Oil	E 215,007	--	169,678	14,413	-26,518	2	423,151	2,051	412	932,655
Natural Gas Liquids and LRGs	47,615	15,435	4,528	--	425	--	14,411	1,258	51,484	132,044
Pentanes Plus	9,410	--	127	--	-1,227	--	5,457	24	5,283	7,753
Liquefied Petroleum Gases	38,205	15,435	4,401	--	1,652	--	8,954	1,234	46,201	124,291
Ethane/Ethylene	15,223	661	400	--	-176	--	0	3	16,457	20,360
Propane/Propylene	14,132	12,522	2,283	--	3,332	--	142	806	24,657	56,205
Normal Butane/Butylene	4,181	1,696	1,285	--	-2,188	--	3,975	425	4,950	36,359
Isobutane	4,669	556	433	--	684	--	4,837	0	137	11,367
Other Liquids	1,953	--	13,372	--	5,445	--	17,145	0	-7,265	155,814
Other Hydrocarbons/Alcohol	1,953	--	0	--	-50	--	2,003	0	0	1,311
Unfinished Oils	--	--	11,504	--	2,046	--	16,803	0	-7,345	113,076
Motor Gasoline Blend. Comp.	--	--	1,868	--	3,495	--	-1,707	0	80	41,274
Aviation Gasoline Blend. Comp.	--	--	0	--	-46	--	46	0	0	153
Finished Petroleum Products	--	459,242	32,490	--	21,156	--	--	22,098	448,478	480,745
Finished Motor Gasoline	--	217,522	7,606	--	15,148	--	--	3,075	206,905	188,697
Leaded	--	10,779	6	--	808	--	--	295	9,682	11,403
Unleaded	--	206,743	7,600	--	14,340	--	--	2,780	197,223	177,294
Finished Aviation Gasoline	--	759	2	--	-20	--	--	0	781	1,794
Jet Fuel	--	45,791	2,443	--	1,739	--	--	1,423	45,072	49,971
Naphtha-Type	--	6,299	298	--	369	--	--	73	6,155	6,088
Kerosene-Type	--	39,492	2,145	--	1,370	--	--	1,349	38,918	43,883
Kerosene	--	2,249	19	--	489	--	--	7	1,772	6,438
Distillate Fuel Oil	--	89,004	6,789	--	5,404	--	--	3,688	86,701	136,497
Residual Fuel Oil	--	27,282	9,317	--	1,301	--	--	5,993	29,305	49,534
Naphtha for Petro. Feed. Use	--	4,764	656	--	-22	--	--	95	5,347	1,429
Other Oils for Petro. Feed. Use	--	6,943	3,602	--	5	--	--	655	9,885	2,034
Special Naphthas	--	1,351	133	--	-235	--	--	228	1,491	2,675
Lubricants	--	5,364	328	--	-287	--	--	635	5,344	11,730
Waxes	--	619	32	--	109	--	--	63	479	974
Petroleum Coke	--	16,518	39	--	-316	--	--	6,130	10,743	7,252
Asphalt and Road Oil	--	17,887	1,475	--	-2,157	--	--	76	21,443	19,178
Still Gas	--	21,122	0	--	0	--	--	0	21,122	0
Miscellaneous Products	--	2,067	49	--	-2	--	--	29	2,089	2,542
Total	264,575	474,677	220,068	14,413	508	2	454,707	25,406	493,109	1,701,258

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 3. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-September 1990
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]	
Crude Oil	E 1,988,810	--	1,690,701	81,477	11,489	16	3,714,677	27,356	7,450	932,655
Natural Gas Liquids and LRGs	**414,361**	**148,776**	**52,746**	--	**42,068**	--	**120,494**	**10,722**	**442,599**	**132,044**
Pentanes Plus	83,168	--	2,229	--	-717	--	48,313	410	37,391	7,753
Liquefied Petroleum Gases	331,193	148,776	50,517	--	42,785	--	72,181	10,312	405,208	124,291
Ethane/Ethylene	123,246	4,050	1,286	--	-2,983	--	58	20	131,487	20,360
Propane/Propylene	127,506	110,219	32,195	--	23,078	--	2,037	6,953	237,852	56,205
Normal Butane/Butylene	38,143	30,960	12,703	--	19,394	--	27,986	3,339	31,087	36,359
Isobutane	42,298	3,547	4,333	--	3,296	--	42,100	0	4,782	11,367
Other Liquids	**19,206**	--	**124,866**	--	**12,321**	--	**168,316**	**0**	**-36,565**	**155,814**
Other Hydrocarbons/Alcohol	19,206	--	0	--	629	--	18,577	0	0	1,311
Unfinished Oils	--	--	105,655	--	6,883	--	152,447	0	-53,675	113,076
Motor Gasoline Blend. Comp.	--	--	19,211	--	4,814	--	-2,666	0	17,063	41,274
Aviation Gasoline Blend. Comp.	--	--	0	--	-5	--	-42	0	47	153
Finished Petroleum Products	--	**4,035,311**	**418,818**	--	**52,329**	--	--	**175,891**	**4,225,909**	**480,745**
Finished Motor Gasoline	--	1,902,333	98,613	--	11,618	--	--	13,787	1,975,541	188,697
Leaded	--	107,571	382	--	-6,278	--	--	1,584	112,647	11,403
Unleaded	--	1,794,762	98,231	--	17,896	--	--	12,203	1,862,894	177,294
Finished Aviation Gasoline	--	6,782	40	--	-277	--	--	0	7,099	1,794
Jet Fuel	--	387,819	30,313	--	9,069	--	--	7,269	401,794	49,971
Naphtha-Type	--	49,959	709	--	-343	--	--	1,338	49,673	6,088
Kerosene-Type	--	337,860	29,604	--	9,412	--	--	5,931	352,121	43,883
Kerosene	--	19,677	1,431	--	1,299	--	--	160	19,649	6,438
Distillate Fuel Oil	--	798,845	80,547	--	30,879	--	--	18,884	829,629	136,497
Residual Fuel Oil	--	263,435	145,488	--	5,725	--	--	56,894	346,304	49,534
Naphtha for Petro. Feed. Use	--	36,607	19,346	--	-528	--	--	1,353	55,128	1,429
Other Oils for Petro. Feed. Use	--	72,206	27,843	--	30	--	--	5,808	94,211	2,034
Special Naphthas	--	15,151	2,374	--	-333	--	--	2,196	15,662	2,675
Lubricants	--	45,623	2,630	--	-2,096	--	--	5,271	45,078	11,730
Waxes	--	4,644	309	--	-48	--	--	494	4,507	974
Petroleum Coke	--	150,373	573	--	-1,263	--	--	62,548	89,661	7,252
Asphalt and Road Oil	--	126,985	8,810	--	-1,437	--	--	668	136,564	19,178
Still Gas	--	187,283	0	--	0	--	--	0	187,283	0
Miscellaneous Products	--	17,548	501	--	-309	--	--	559	17,799	2,542
Total	**2,422,377**	**4,184,087**	**2,287,131**	**81,477**	**118,207**	**16**	**4,003,487**	**213,970**	**4,639,393**	**1,701,258**

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	[E] 7,167	--	5,656	480	-884	(s)	14,105	68	14
Natural Gas Liquids and LRGs	1,587	515	151	--	14	--	480	42	1,716
Pentanes Plus	314	--	4	--	-41	--	182	1	176
Liquefied Petroleum Gases	1,274	515	147	--	55	--	298	41	1,540
Ethane/Ethylene	507	22	13	--	-6	--	0	(s)	549
Propane/Propylene	471	417	76	--	111	--	5	27	822
Normal Butane/Butylene	139	57	43	--	-73	--	133	14	165
Isobutane	156	19	14	--	23	--	161	0	5
Other Liquids	65	--	446	--	182	--	572	0	-242
Other Hydrocarbons/Alcohol	65	--	0	--	-2	--	67	0	0
Unfinished Oils	--	--	383	--	68	--	560	0	-245
Motor Gasoline Blend. Comp.	--	--	62	--	117	--	-57	0	3
Aviation Gasoline Blend. Comp.	--	--	0	--	-2	--	2	0	0
Finished Petroleum Products	--	15,308	1,083	--	705	--	--	737	14,949
Finished Motor Gasoline	--	7,251	254	--	505	--	--	103	6,897
Leaded	--	359	(s)	--	27	--	--	10	323
Unleaded	--	6,891	253	--	478	--	--	93	6,574
Finished Aviation Gasoline	--	25	(s)	--	-1	--	--	0	26
Jet Fuel	--	1,526	81	--	58	--	--	47	1,502
Naphtha-Type	--	210	10	--	12	--	--	2	205
Kerosene-Type	--	1,316	72	--	46	--	--	45	1,297
Kerosene	--	75	1	--	16	--	--	(s)	59
Distillate Fuel Oil	--	2,967	226	--	180	--	--	123	2,890
Residual Fuel Oil	--	909	311	--	43	--	--	200	977
Naphtha for Petro. Feed. Use	--	159	22	--	-1	--	--	3	178
Other Oils for Petro. Feed. Use	--	231	120	--	(s)	--	--	22	329
Special Naphthas	--	45	4	--	-8	--	--	8	50
Lubricants	--	179	11	--	-10	--	--	21	178
Waxes	--	21	1	--	4	--	--	2	16
Petroleum Coke	--	551	1	--	-11	--	--	204	358
Asphalt and Road Oil	--	596	49	--	-72	--	--	3	715
Still Gas	--	704	0	--	0	--	--	0	704
Miscellaneous Products	--	69	2	--	(s)	--	--	1	70
Total	8,819	15,823	7,336	480	17	(s)	15,157	847	16,437

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[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil[a]	Stock Change[b]	Crude Losses	Refinery Inputs	Exports	Products Supplied[c]
Crude Oil	E 7,285	--	6,193	298	42	(s)	13,607	100	27
Natural Gas Liquids and LRGs	1,518	545	193	--	154	--	441	39	1,621
Pentanes Plus	305	--	8	--	-3	--	177	2	137
Liquefied Petroleum Gases	1,213	545	185	--	157	--	264	38	1,484
Ethane/Ethylene	451	15	5	--	-11	--	(s)	(s)	482
Propane/Propylene	467	404	118	--	85	--	7	25	871
Normal Butane/Butylene	140	113	47	--	71	--	103	12	114
Isobutane	155	13	16	--	12	--	154	0	18
Other Liquids	70	--	457	--	45	--	617	0	-134
Other Hydrocarbons/Alcohol	70	--	0	--	2	--	68	0	0
Unfinished Oils	--	--	387	--	25	--	558	0	-197
Motor Gasoline Blend. Comp.	--	--	70	--	18	--	-10	0	63
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	(s)	0	(s)
Finished Petroleum Products	--	14,781	1,534	--	192	--	--	644	15,480
Finished Motor Gasoline	--	6,968	361	--	43	--	--	51	7,236
Leaded	--	394	1	--	-23	--	--	6	413
Unleaded	--	6,574	360	--	66	--	--	45	6,824
Finished Aviation Gasoline	--	25	(s)	--	-1	--	--	0	26
Jet Fuel	--	1,421	111	--	33	--	--	27	1,472
Naphtha-Type	--	183	3	--	-1	--	--	5	182
Kerosene-Type	--	1,238	108	--	34	--	--	22	1,290
Kerosene	--	72	5	--	5	--	--	1	72
Distillate Fuel Oil	--	2,926	295	--	113	--	--	69	3,039
Residual Fuel Oil	--	965	533	--	21	--	--	208	1,269
Naphtha for Petro. Feed. Use	--	134	71	--	-2	--	--	5	202
Other Oils for Petro. Feed. Use	--	264	102	--	(s)	--	--	21	345
Special Naphthas	--	55	9	--	-1	--	--	8	57
Lubricants	--	167	10	--	-8	--	--	19	165
Waxes	--	17	1	--	(s)	--	--	2	17
Petroleum Coke	--	551	2	--	-5	--	--	229	328
Asphalt and Road Oil	--	465	32	--	-5	--	--	2	500
Still Gas	--	686	0	--	0	--	--	0	686
Miscellaneous Products	--	64	2	--	-1	--	--	2	65
Total	8,873	15,326	8,378	298	433	(s)	14,665	784	16,994

[a] Unaccounted for crude oil is a balancing item. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

[b] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[c] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 819	--	36,613	3,869	641	-671	0	42,613	0	0	15,991
Natural Gas Liquids and LRGs	851	1,372	724	--	2,881	284	--	0	53	5,491	5,587
Pentanes Plus	122	--	0	--	0	46	--	0	1	75	133
Liquefied Petroleum Gases	729	1,372	724	--	2,881	238	--	0	52	5,416	5,454
Ethane/Ethylene	240	133	0	--	0	19	--	0	3	351	33
Propane/Propylene	320	1,270	555	--	2,725	374	--	0	44	4,452	3,741
Normal Butane/Butylene	126	-12	166	--	103	-173	--	0	6	550	1,587
Isobutane	43	-19	3	--	53	18	--	0	0	62	93
Other Liquids	101	--	3,903	--	866	1,102	--	5,656	0	-1,888	19,665
Other Hydrocarbons/Alcohol	101	--	0	--	0	-3	--	104	0	0	162
Unfinished Oils	--	--	2,575	--	150	588	--	5,846	0	-3,709	14,454
Motor Gasoline Blend. Comp.	--	--	1,328	--	716	517	--	-294	0	1,821	5,049
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	--	48,650	25,721	--	71,490	11,050	--	--	1,641	133,170	170,922
Finished Motor Gasoline	--	20,846	7,088	--	44,107	4,365	--	--	253	67,423	59,307
Leaded	--	155	0	--	0	21	--	--	1	133	136
Unleaded	--	20,691	7,088	--	44,107	4,344	--	--	252	67,290	59,171
Finished Aviation Gasoline	--	12	1	--	63	-35	--	--	0	111	219
Jet Fuel	--	2,917	1,610	--	10,898	94	--	--	449	14,882	12,647
Naphtha-Type	--	351	247	--	389	-126	--	--	0	1,113	710
Kerosene-Type	--	2,566	1,363	--	10,509	220	--	--	449	13,769	11,937
Kerosene	--	212	19	--	222	260	--	--	4	189	2,847
Distillate Fuel Oil	--	11,876	6,342	--	14,285	5,062	--	--	239	27,202	62,967
Residual Fuel Oil	--	3,930	8,748	--	1,028	1,739	--	--	252	11,715	22,344
Petrochemical Feedstocks[e]	--	499	148	--	-55	0	--	--	3	589	166
Special Naphthas	--	58	8	--	193	-10	--	--	8	261	602
Lubricants	--	675	291	--	316	-216	--	--	185	1,313	2,662
Waxes	--	92	23	--	0	5	--	--	11	99	59
Petroleum Coke	--	1,348	0	--	0	-74	--	--	224	1,198	591
Asphalt and Road Oil	--	3,986	1,407	--	425	-252	--	--	2	6,068	5,712
Still Gas	--	1,893	0	--	0	0	--	--	0	1,893	0
Miscellaneous Products	--	306	36	--	8	112	--	--	9	229	799
Total	1,771	50,022	66,961	3,869	75,878	11,765	0	48,269	1,694	136,773	212,165

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 7. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 31	--	1,259	33	20	10	(s)	1,334	(s)	0
Natural Gas Liquids and LRGs	25	49	37	--	84	10	--	2	3	179
Pentanes Plus	4	--	3	--	0	(s)	--	(s)	(s)	7
Liquefied Petroleum Gases	21	49	34	--	84	10	--	2	3	172
Ethane/Ethylene	6	4	0	--	0	(s)	--	0	(s)	11
Propane/Propylene	10	37	31	--	82	7	--	0	1	151
Normal Butane/Butylene	4	7	2	--	1	3	--	1	2	9
Isobutane	1	(s)	(s)	--	2	(s)	--	1	0	2
Other Liquids	3	--	166	--	14	10	--	156	0	17
Other Hydrocarbons/Alcohol	3	--	0	--	0	(s)	--	2	0	0
Unfinished Oils	--	--	108	--	5	7	--	146	0	-40
Motor Gasoline Blend. Comp.	--	--	58	--	9	2	--	8	0	57
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	--	1,505	1,215	--	2,400	145	--	--	35	4,939
Finished Motor Gasoline	--	656	320	--	1,428	25	--	--	2	2,377
Leaded	--	8	0	--	4	-3	--	--	(s)	16
Unleaded	--	648	320	--	1,423	28	--	--	2	2,361
Finished Aviation Gasoline	--	(s)	(s)	--	3	(s)	--	--	0	4
Jet Fuel	--	95	79	--	347	9	--	--	2	510
Naphtha-Type	--	14	1	--	15	-2	--	--	(s)	33
Kerosene-Type	--	81	78	--	332	11	--	--	2	478
Kerosene	--	7	4	--	10	2	--	--	(s)	19
Distillate Fuel Oil	--	358	281	--	550	102	--	--	2	1,085
Residual Fuel Oil	--	139	481	--	29	13	--	--	12	625
Petrochemical Feedstocks[e]	--	12	8	--	-4	-1	--	--	1	17
Special Naphthas	--	4	(s)	--	8	-1	--	--	(s)	13
Lubricants	--	21	8	--	14	-1	--	--	6	40
Waxes	--	2	1	--	(s)	(s)	--	--	(s)	3
Petroleum Coke	--	42	0	--	0	-1	--	--	9	34
Asphalt and Road Oil	--	94	31	--	12	-1	--	--	1	136
Still Gas	--	63	0	--	0	0	--	--	0	63
Miscellaneous Products	--	10	2	--	2	(s)	--	--	(s)	13
Total	58	1,554	2,676	33	2,518	175	(s)	1,491	38	5,134

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 8. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 21,906	--	14,298	1,693	52,017	-7,811	0	97,316	409	0	72,311
Natural Gas Liquids and LRGs	8,771	3,153	1,583	--	2,029	2,577	--	3,743	361	8,855	39,909
Pentanes Plus	1,444	--	37	--	466	-613	--	1,478	0	1,082	2,244
Liquefied Petroleum Gases	7,327	3,153	1,546	--	1,563	3,190	--	2,265	361	7,773	37,665
Ethane/Ethylene	2,484	31	400	--	-989	631	--	0	0	1,295	5,380
Propane/Propylene	3,136	3,170	934	--	1,563	1,782	--	65	213	6,743	20,181
Normal Butane/Butylene	1,124	-65	208	--	3	364	--	811	148	-53	8,979
Isobutane	583	17	4	--	986	413	--	1,389	0	-212	3,125
Other Liquids	97	--	0	--	162	1,009	--	883	0	-1,633	26,606
Other Hydrocarbons/Alcohol	97	--	0	--	0	16	--	81	0	0	263
Unfinished Oils	--	--	0	--	139	-242	--	809	0	-428	16,829
Motor Gasoline Blend. Comp.	--	--	0	--	23	1,279	--	-51	0	-1,205	9,451
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-44	--	44	0	0	63
Finished Petroleum Products	--	102,690	622	--	18,466	3,843	--	--	420	117,515	109,824
Finished Motor Gasoline	--	55,069	185	--	11,036	4,259	--	--	25	62,006	51,809
Leaded	--	1,429	0	--	109	-103	--	--	0	1,641	3,325
Unleaded	--	53,640	185	--	10,927	4,362	--	--	25	60,365	48,484
Finished Aviation Gasoline	--	180	0	--	65	69	--	--	0	176	541
Jet Fuel	--	6,874	51	--	2,724	961	--	--	2	8,686	10,430
Naphtha-Type	--	498	51	--	54	132	--	--	(s)	471	982
Kerosene-Type	--	6,376	0	--	2,670	829	--	--	2	8,215	9,448
Kerosene	--	405	0	--	-27	69	--	--	1	308	1,723
Distillate Fuel Oil	--	21,120	155	--	4,736	-339	--	--	4	26,346	30,030
Residual Fuel Oil	--	2,428	0	--	-840	282	--	--	1	1,305	4,056
Petrochemical Feedstocks[e]	--	1,444	74	--	55	-55	--	--	0	1,628	332
Special Naphthas	--	383	88	--	93	-15	--	--	7	572	536
Lubricants	--	546	37	--	283	-345	--	--	41	1,170	1,561
Waxes	--	9	3	--	0	-36	--	--	2	46	137
Petroleum Coke	--	3,130	0	--	0	-206	--	--	279	3,057	1,582
Asphalt and Road Oil	--	6,168	16	--	351	-813	--	--	57	7,291	6,854
Still Gas	--	4,561	0	--	0	0	--	--	0	4,561	0
Miscellaneous Products	--	373	13	--	-10	12	--	--	(s)	364	233
Total	30,774	105,843	16,503	1,693	72,674	-382	0	101,942	1,189	124,737	248,650

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 9. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 738	–	479	-20	1,878	7	0	3,055	13	0
Natural Gas Liquids and LRGs	277	110	71	--	56	61	--	113	10	330
Pentanes Plus	46	--	1	--	17	-3	--	44	0	24
Liquefied Petroleum Gases	231	110	70	--	39	64	--	69	10	307
Ethane/Ethylene	68	1	1	--	-21	4	--	(s)	(s)	45
Propane/Propylene	105	102	52	--	41	39	--	2	5	253
Normal Butane/Butylene	37	7	14	--	-1	18	--	23	5	11
Isobutane	21	1	2	--	21	3	--	44	0	-2
Other Liquids	4	–	(s)	--	1	6	--	46	0	-47
Other Hydrocarbons/Alcohol	4	--	0	--	0	(s)	--	4	0	0
Unfinished Oils	--	--	0	--	(s)	(s)	--	23	0	-22
Motor Gasoline Blend. Comp.	--	--	(s)	--	1	6	--	19	0	-25
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	3,243	20	--	693	5	--	–	17	3,933
Finished Motor Gasoline	--	1,735	5	--	433	7	--	--	2	2,165
Leaded	--	74	0	--	5	-9	--	--	(s)	87
Unleaded	--	1,661	5	--	429	16	--	--	2	2,078
Finished Aviation Gasoline	--	4	0	--	3	(s)	--	–	0	7
Jet Fuel	--	194	2	--	94	8	--	--	(s)	281
Naphtha-Type	--	15	2	--	3	(s)	--	–	(s)	20
Kerosene-Type	--	179	(s)	--	90	8	--	--	(s)	262
Kerosene	--	14	0	--	(s)	(s)	--	--	(s)	13
Distillate Fuel Oil	--	711	6	--	155	-3	--	–	1	874
Residual Fuel Oil	--	71	2	--	-15	2	--	--	1	56
Petrochemical Feedstocks[e]	--	38	2	--	3	(s)	--	--	(s)	43
Special Naphthas	--	16	1	--	4	(s)	--	–	(s)	21
Lubricants	--	25	1	--	9	-2	--	--	1	36
Waxes	--	2	(s)	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	120	0	--	0	-6	--	--	10	117
Asphalt and Road Oil	--	155	(s)	--	7	-1	--	–	1	162
Still Gas	--	143	0	--	0	0	--	--	0	143
Miscellaneous Products	--	14	(s)	--	(s)	(s)	--	--	(s)	14
Total	1,019	3,353	570	-20	2,628	80	0	3,214	40	4,217

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 10. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	
Crude Oil	E 97,665	--	110,742	10,090	-40,788	-7,751	0	185,460	0	0	763,335
Natural Gas Liquids and LRGs	32,303	8,485	1,759	--	-3,181	-3,106	--	8,291	650	33,531	80,275
Pentanes Plus	5,993	--	0	--	-201	-523	--	3,148	22	3,145	5,104
Liquefied Petroleum Gases	26,310	8,485	1,759	--	-2,980	-2,583	--	5,143	629	30,385	75,171
Ethane/Ethylene	11,556	451	0	--	1,616	-833	--	0	0	14,456	14,801
Propane/Propylene	9,143	6,798	648	--	-3,871	936	--	77	361	11,344	30,573
Normal Butane/Butylene	1,955	805	755	--	161	-2,901	--	2,184	268	4,125	22,198
Isobutane	3,656	431	356	--	-886	215	--	2,882	0	460	7,599
Other Liquids	1,344	--	9,414	--	-1,134	1,990	--	10,409	0	-2,775	72,364
Other Hydrocarbons/Alcohol	1,344	--	0	--	0	-12	--	1,356	0	0	525
Unfinished Oils	--	--	8,874	--	-395	1,291	--	9,611	0	-2,423	54,371
Motor Gasoline Blend. Comp.	--	--	540	--	-739	707	--	-554	0	-352	17,384
Aviation Gasoline Blend. Comp.	--	--	0	--	0	4	--	-4	0	0	84
Finished Petroleum Products	--	205,372	4,727	--	-92,645	2,998	--	--	13,395	101,061	129,604
Finished Motor Gasoline	--	97,227	0	--	-56,712	3,749	--	--	2,687	34,079	48,751
Leaded	--	1,496	0	--	-227	0	--	--	294	975	936
Unleaded	--	95,731	0	--	-56,485	3,749	--	--	2,394	33,103	47,815
Finished Aviation Gasoline	--	333	0	--	-136	-63	--	--	0	260	528
Jet Fuel	--	21,653	254	--	-14,589	-594	--	--	959	6,953	16,496
Naphtha-Type	--	3,655	0	--	-650	279	--	--	61	2,665	2,363
Kerosene-Type	--	17,998	254	--	-13,939	-873	--	--	897	4,289	14,133
Kerosene	--	1,493	0	--	-195	128	--	--	2	1,168	1,743
Distillate Fuel Oil	--	38,723	0	--	-19,231	319	--	--	3,373	15,800	29,416
Residual Fuel Oil	--	10,053	362	--	-188	-55	--	--	1,508	8,774	14,628
Petrochemical Feedstocks[e]	--	9,330	4,036	--	0	36	--	--	599	12,731	2,720
Special Naphthas	--	794	25	--	-286	-211	--	--	213	531	1,394
Lubricants	--	3,455	0	--	-534	338	--	--	306	2,277	5,525
Waxes	--	349	1	--	0	58	--	--	38	254	456
Petroleum Coke	--	7,320	0	--	0	-116	--	--	3,689	3,747	3,143
Asphalt and Road Oil	--	4,225	49	--	-776	-450	--	--	5	3,943	3,501
Still Gas	--	9,229	0	--	0	0	--	--	0	9,229	0
Miscellaneous Products	--	1,188	0	--	2	-141	--	--	16	1,315	1,303
Total	131,312	213,857	126,642	10,090	-137,748	-5,869	0	204,160	14,046	131,816	1,045,578

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 11. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 3,288**	**--**	**4,139**	**264**	**-1,489**	**79**	**(s)**	**6,123**	**0**	**0**
Natural Gas Liquids and LRGs	**1,029**	**317**	**73**	**--**	**-83**	**78**	**–**	**250**	**17**	**990**
Pentanes Plus	191	--	1	--	-8	(s)	--	101	1	81
Liquefied Petroleum Gases	838	317	72	--	-75	78	--	149	16	910
Ethane/Ethylene	352	9	3	--	39	-15	--	(s)	0	418
Propane/Propylene	300	222	30	--	-108	36	--	5	10	393
Normal Butane/Butylene	66	75	27	--	10	48	--	48	6	76
Isobutane	120	11	12	--	-17	9	--	95	0	23
Other Liquids	**48**	**--**	**286**	**--**	**-18**	**18**	**–**	**381**	**0**	**-82**
Other Hydrocarbons/Alcohol	48	--	0	--	0	1	--	48	0	0
Unfinished Oils	--	--	276	--	-8	5	--	374	0	-111
Motor Gasoline Blend. Comp.	--	--	10	--	-10	11	--	-40	0	29
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	**--**	**6,745**	**242**	**--**	**-3,173**	**40**	**–**	**--**	**314**	**3,460**
Finished Motor Gasoline	--	3,140	19	--	-1,906	11	--	--	43	1,199
Leaded	--	73	(s)	--	-13	-7	--	--	6	61
Unleaded	--	3,067	19	--	-1,893	17	--	--	38	1,138
Finished Aviation Gasoline	--	14	0	--	-7	-1	--	--	0	8
Jet Fuel	--	694	22	--	-469	14	--	--	15	218
Naphtha-Type	--	100	0	--	-24	2	--	--	1	73
Kerosene-Type	--	595	22	--	-446	12	--	--	14	145
Kerosene	--	48	2	--	-10	2	--	--	(s)	37
Distillate Fuel Oil	--	1,298	2	--	-711	16	--	--	49	522
Residual Fuel Oil	--	366	27	--	-15	3	--	--	51	324
Petrochemical Feedstocks[e]	--	336	162	--	1	-1	--	--	18	482
Special Naphthas	--	33	7	--	-12	(s)	--	--	4	23
Lubricants	--	101	(s)	--	-22	-4	--	--	9	74
Waxes	--	10	(s)	--	(s)	(s)	--	--	1	9
Petroleum Coke	--	241	1	--	0	2	--	--	123	117
Asphalt and Road Oil	--	117	1	--	-19	-2	--	--	(s)	102
Still Gas	--	314	0	--	0	0	--	--	0	314
Miscellaneous Products	--	35	(s)	--	-2	(s)	--	--	1	32
Total	**4,366**	**7,062**	**4,739**	**264**	**-4,763**	**215**	**(s)**	**6,754**	**332**	**4,368**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 12. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply					Disposition						Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]		
Crude Oil	E 14,499	--	2,500	603	-3,762	-840	0	14,680	0	0		10,749
Natural Gas Liquids and LRGs	3,674	260	314	--	-1,729	121	--	561	8	1,829		1,333
Pentanes Plus	791	--	90	--	-265	2	--	131	0	483		143
Liquefied Petroleum Gases	2,883	260	224	--	-1,464	119	--	430	8	1,346		1,190
Ethane/Ethylene	942	0	0	--	-627	7	--	0	0	308		146
Propane/Propylene	1,219	220	82	--	-417	19	--	0	6	1,079		467
Normal Butane/Butylene	503	45	124	--	-267	89	--	322	3	-9		431
Isobutane	219	-5	18	--	-153	4	--	108	0	-33		146
Other Liquids	32	--	0	--	0	592	--	-464	0	-96		4,205
Other Hydrocarbons/Alcohol	32	--	0	--	0	24	--	8	0	0		182
Unfinished Oils	--	--	0	--	0	194	--	-162	0	-32		2,136
Motor Gasoline Blend. Comp.	--	--	0	--	0	374	--	-310	0	-64		1,887
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0		0
Finished Petroleum Products	--	14,885	139	--	-454	-319	--	--	23	14,866		9,588
Finished Motor Gasoline	--	6,930	40	--	-446	20	--	--	0	6,504		4,373
Leaded	--	1,812	6	--	-354	220	--	--	0	1,244		1,533
Unleaded	--	5,118	34	--	-92	-200	--	--	0	5,260		2,840
Finished Aviation Gasoline	--	21	0	--	8	0	--	--	0	29		49
Jet Fuel	--	1,240	0	--	279	108	--	--	0	1,411		1,141
Naphtha-Type	--	447	0	--	-201	111	--	--	0	135		399
Kerosene-Type	--	793	0	--	480	-3	--	--	0	1,276		742
Kerosene	--	18	0	--	0	14	--	--	0	4		45
Distillate Fuel Oil	--	4,020	99	--	-295	-70	--	--	0	3,894		2,459
Residual Fuel Oil	--	288	0	--	0	-47	--	--	0	335		474
Petrochemical Feedstocks[e]	--	2	0	--	0	-1	--	--	0	3		2
Special Naphthas	--	0	0	--	0	-1	--	--	0	1		6
Lubricants	--	-1	0	--	0	-8	--	--	3	4		39
Waxes	--	95	0	--	0	66	--	--	(s)	29		185
Petroleum Coke	--	353	0	--	0	20	--	--	19	314		53
Asphalt and Road Oil	--	1,220	0	--	0	-425	--	--	(s)	1,645		743
Still Gas	--	641	0	--	0	0	--	--	0	641		0
Miscellaneous Products	--	58	0	--	0	5	--	--	(s)	53		19
Total	18,205	15,145	2,953	603	-5,945	-446	0	14,777	31	16,599		25,875

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 13. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	**E 497**	**–**	**73**	**28**	**-135**	**-6**	**0**	**469**	**(s)**	**0**
Natural Gas Liquids and LRGs	**116**	**8**	**9**	**–**	**-57**	**(s)**	--	**18**	**(s)**	**57**
Pentanes Plus	24	--	3	--	-9	(s)	--	5	0	14
Liquefied Petroleum Gases	91	8	6	--	-48	1	--	13	(s)	43
Ethane/Ethylene	25	(s)	0	--	-18	(s)	--	0	0	7
Propane/Propylene	42	7	3	--	-15	(s)	--	(s)	(s)	36
Normal Butane/Butylene	17	2	2	--	-9	(s)	--	10	(s)	1
Isobutane	8	(s)	(s)	--	-6	(s)	--	3	0	-1
Other Liquids	**1**	**–**	**(s)**	**–**	**0**	**-2**	**–**	**2**	**0**	**2**
Other Hydrocarbons/Alcohol	1	--	0	--	0	(s)	--	1	0	0
Unfinished Oils	--	--	(s)	--	0	-2	--	-2	0	3
Motor Gasoline Blend. Comp.	--	--	0	--	0	-1	--	3	0	-2
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	(s)	0	(s)
Finished Petroleum Products	**–**	**491**	**4**	**–**	**-21**	**-10**	**–**	**–**	**1**	**482**
Finished Motor Gasoline	--	242	1	--	-16	-3	--	--	(s)	230
Leaded	--	61	(s)	--	-12	-2	--	--	(s)	51
Unleaded	--	181	1	--	-4	-1	--	--	(s)	179
Finished Aviation Gasoline	--	1	0	--	1	(s)	--	--	0	1
Jet Fuel	--	40	0	--	10	(s)	--	--	(s)	50
Naphtha-Type	--	14	0	--	-6	(s)	--	--	0	8
Kerosene-Type	--	26	0	--	16	(s)	--	--	(s)	42
Kerosene	--	(s)	0	--	0	(s)	--	--	0	(s)
Distillate Fuel Oil	--	127	2	--	-15	-3	--	--	(s)	116
Residual Fuel Oil	--	10	(s)	--	0	(s)	--	--	0	11
Petrochemical Feedstocks[e]	--	(s)	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	(s)	0	--	0	(s)	--	--	(s)	(s)
Lubricants	--	(s)	0	--	0	(s)	--	--	(s)	1
Waxes	--	2	0	--	0	(s)	--	--	(s)	1
Petroleum Coke	--	11	0	--	0	(s)	--	--	(s)	10
Asphalt and Road Oil	--	35	0	--	0	-4	--	--	(s)	39
Still Gas	--	21	0	--	0	0	--	--	0	21
Miscellaneous Products	--	2	0	--	0	(s)	--	--	(s)	2
Total	**614**	**499**	**85**	**28**	**-214**	**-18**	**0**	**489**	**1**	**541**

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 14. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, September 1990
(Thousand Barrels)

Commodity	Supply					Disposition						
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]	Ending Stocks
Crude Oil	E 80,118	--	5,525	-1,842	-8,108	-9,445	2	83,082	1,642	412	70,269
Natural Gas Liquids and LRGs	2,016	2,165	148	--	0	549	--	1,816	186	1,778	4,940
Pentanes Plus	1,060	--	0	--	0	-139	--	700	2	497	129
Liquefied Petroleum Gases	956	2,165	148	--	0	688	--	1,116	184	1,281	4,811
Ethane/Ethylene	1	46	0	--	0	0	--	0	(s)	47	0
Propane/Propylene	314	1,064	64	--	0	221	--	0	183	1,038	1,243
Normal Butane/Butylene	473	923	32	--	0	433	--	658	1	336	3,164
Isobutane	168	132	52	--	0	34	--	458	0	-140	404
Other Liquids	379	--	55	--	106	752	--	661	0	-873	32,974
Other Hydrocarbons/Alcohol	379	--	0	--	0	-75	--	454	0	0	179
Unfinished Oils	--	--	55	--	106	215	--	699	0	-753	25,286
Motor Gasoline Blend. Comp.	--	--	0	--	0	618	--	-498	0	-120	7,503
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-6	--	6	0	0	6
Finished Petroleum Products	--	87,645	1,281	--	3,143	3,584	--	--	6,619	81,866	60,807
Finished Motor Gasoline	--	37,450	293	--	2,015	2,755	--	--	109	36,894	24,457
Leaded	--	5,887	0	--	472	670	--	--	(s)	5,689	5,473
Unleaded	--	31,563	293	--	1,543	2,085	--	--	109	31,205	18,984
Finished Aviation Gasoline	--	213	1	--	0	9	--	--	0	205	457
Jet Fuel	--	13,107	528	--	688	1,170	--	--	12	13,141	9,257
Naphtha-Type	--	1,348	0	--	408	-27	--	--	12	1,771	1,634
Kerosene-Type	--	11,759	528	--	280	1,197	--	--	1	11,369	7,623
Kerosene	--	121	0	--	0	18	--	--	(s)	103	80
Distillate Fuel Oil	--	13,265	193	--	505	432	--	--	71	13,460	11,625
Residual Fuel Oil	--	10,583	207	--	0	-618	--	--	4,233	7,175	8,032
Petrochemical Feedstocks[e]	--	432	0	--	0	3	--	--	148	281	243
Special Naphthas	--	116	12	--	0	2	--	--	(s)	126	137
Lubricants	--	689	0	--	-65	-56	--	--	99	581	1,943
Waxes	--	74	5	--	0	16	--	--	11	52	137
Petroleum Coke	--	4,367	39	--	0	60	--	--	1,919	2,427	1,883
Asphalt and Road Oil	--	2,288	3	--	0	-217	--	--	11	2,497	2,368
Still Gas	--	4,798	0	--	0	0	--	--	0	4,798	0
Miscellaneous Products	--	142	0	--	0	10	--	--	4	128	188
Total	82,513	89,810	7,009	-1,842	-4,859	-4,560	2	85,559	8,447	83,183	168,990

[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 15. PAD District V -- Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-September 1990

(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry[a]	Unaccounted For Crude Oil[b]	Net Receipts	Stock Change[c]	Crude Losses	Refinery Inputs	Exports	Products Supplied[d]
Crude Oil	E 2,730	--	244	-7	-273	-48	(s)	2,627	87	27
Natural Gas Liquids and LRGs	72	51	5	--	0	4	--	59	9	65
Pentanes Plus	40	--	0	--	0	(s)	--	27	(s)	13
Liquefied Petroleum Gases	32	61	5	--	0	4	--	32	9	53
Ethane/Ethylene	(s)	1	0	--	0	0	--	0	(s)	1
Propane/Propylene	10	36	3	--	0	2	--	(s)	9	38
Normal Butane/Butylene	16	22	1	--	0	1	--	21	(s)	17
Isobutane	5	1	1	--	0	1	--	11	0	-3
Other Liquids	14	--	5	--	3	14	--	32	0	-24
Other Hydrocarbons/Alcohol	14	--	0	--	0	1	--	13	0	0
Unfinished Oils	--	--	3	--	3	14	--	18	0	-27
Motor Gasoline Blend. Comp.	--	--	2	--	0	-1	--	(s)	0	3
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	--	2,798	55	--	102	11	--	--	278	2,665
Finished Motor Gasoline	--	1,195	16	--	61	3	--	--	4	1,265
Leaded	--	179	1	--	17	-2	--	--	(s)	198
Unleaded	--	1,017	15	--	45	5	--	--	3	1,067
Finished Aviation Gasoline	--	6	(s)	--	(s)	(s)	--	--	0	6
Jet Fuel	--	398	9	--	19	3	--	--	10	413
Naphtha-Type	--	41	(s)	--	11	-1	--	--	4	49
Kerosene-Type	--	357	9	--	8	3	--	--	6	364
Kerosene	--	3	0	--	0	(s)	--	--	(s)	3
Distillate Fuel Oil	--	432	4	--	21	(s)	--	--	17	441
Residual Fuel Oil	--	379	23	--	1	3	--	--	145	254
Petrochemical Feedstocks[e]	--	12	1	--	0	(s)	--	--	8	5
Special Naphthas	--	3	(s)	--	0	(s)	--	--	3	(s)
Lubricants	--	20	(s)	--	-1	1	--	--	3	15
Waxes	--	2	(s)	--	0	-1	--	--	(s)	2
Petroleum Coke	--	136	1	--	0	1	--	--	87	50
Asphalt and Road Oil	--	64	(s)	--	0	2	--	--	(s)	61
Still Gas	--	145	0	--	0	0	--	--	0	145
Miscellaneous Products	--	4	0	--	0	(s)	--	--	1	4
Total	2,816	2,858	308	-7	-169	-19	(s)	2,717	373	2,734

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[a] Imports by PAD District of Entry represents the PAD District in which the material entered the United States. The PAD District of Entry is not necessarily the District in which the crude oil or product is processed and/or consumed.

[b] Unaccounted for crude oil is a balancing item.

[c] A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

[d] Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

[e] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 16. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	July 1990		January-July 1990	
	Total	Daily Average	Total	Daily Average
PAD District I	**E 877**	**E 28**	**E 6,751**	**E 32**
Florida	456	15	3,647	17
New York	E 34	E 1	E 247	E 1
Pennsylvania	E 207	E 7	E 1,548	E 7
Virginia	1	(s)	E 10	E (s)
West Virginia	155	5	1,239	6
Adjustment[a]	24	1	62	(s)
PAD District II	**E 22,363**	**E 721**	**E 156,445**	**E 738**
Illinois	1,675	54	11,528	54
Indiana	156	5	1,681	8
Kansas	4,454	144	31,399	148
Kentucky	449	14	3,059	14
Michigan	E 1,637	E 53	E 11,558	E 55
Missouri	9	(s)	76	(s)
Nebraska	507	16	3,428	16
North Dakota	3,069	99	21,294	100
Ohio	E 691	E 22	E 5,609	E 26
Oklahoma	9,309	300	63,494	300
South Dakota	134	4	949	4
Tennessee	45	1	307	1
Adjustment[a]	228	7	2,063	10
PAD District III	**E 100,769**	**E 3,251**	**E 699,481**	**E 3,299**
Alabama	1,532	49	10,869	51
Arkansas	E 897	E 29	E 6,151	E 29
Louisiana[b]	E 11,920	E 385	E 85,012	E 401
Mississippi	2,256	73	15,589	74
New Mexico	5,560	179	38,895	183
Texas[b]	55,288	1,783	389,621	1,838
Federal Offshore PAD District III	21,270	686	E 146,967	E 693
Adjustment[a]	2,046	66	6,380	30
PAD District IV	**15,165**	**489**	**E 106,132**	**E 501**
Colorado	2,516	81	17,284	82
Montana	1,644	53	E 11,389	E 54
Utah	2,284	74	16,231	77
Wyoming	8,516	275	60,252	284
Adjustment[a]	205	7	978	5
PAD District V	**82,284**	**2,654**	**581,316**	**2,742**
Alaska[b]	52,291	1,687	375,006	1,769
South Alaska	1,003	32	5,070	24
North Slope	51,288	1,654	369,933	1,745
Adjustment for Alaska[a]	0	0	2	(s)
Arizona	11	(s)	75	(s)
California[b]	26,906	868	186,252	879
Nevada	331	11	2,251	11
Federal Offshore PAD District V	2,544	82	17,736	84
Adjustment excluding Alaska[a]	201	6	-7	(s)
U.S. Total[b]	**E 221,458**	**E 7,144**	**E 1,550,125**	**E 7,312**

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[a] These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual.*

[b] Includes the following current month offshore production (thousand barrels): Alaska: State - 3,948; California: State - 1,977; Louisiana: State - E1,774; Texas: State -127; U.S. Total, including Federal offshore - E31,640.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 17. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, September 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production			
Natural Gas Liquids	**233**	**618**	**851**	**608**	**419**	**7,744**	**8,771**
Pentanes Plus	48	74	122	120	106	1,218	1,444
Liquefied Petroleum Gases	185	544	729	488	313	6,526	7,327
Ethane	53	187	240	82	0	2,402	2,484
Propane	76	244	320	238	184	2,714	3,136
Normal Butane	44	82	126	92	125	907	1,124
Isobutane	12	31	43	76	4	503	583
				Stocks			
Natural Gas Liquids	**238**	**41**	**279**	**111**	**57**	**1,678**	**1,846**
Pentanes Plus	49	4	53	21	17	147	185
Liquefied Petroleum Gases	189	37	226	90	40	1,531	1,661
Ethane	0	0	0	9	0	413	422
Propane	144	28	172	39	21	553	613
Normal Butane	43	5	48	21	19	403	443
Isobutane	2	4	6	21	0	162	183

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
					Net Production				
Natural Gas Liquids	**17,849**	**2,820**	**7,064**	**636**	**3,934**	**32,303**	**3,674**	**2,016**	**47,615**
Pentanes Plus	3,339	594	1,324	192	544	5,993	791	1,060	9,410
Liquefied Petroleum Gases	14,510	2,226	5,740	444	3,390	26,310	2,883	956	38,205
Ethane	6,129	1,196	2,471	97	1,663	11,556	942	1	15,223
Propane	5,272	645	1,943	182	1,101	9,143	1,219	314	14,132
Normal Butane	2,270	-1,398	558	113	412	1,955	503	473	4,181
Isobutane	839	1,783	768	52	214	3,656	219	168	4,669
					Stocks				
Natural Gas Liquids	**979**	**5,376**	**2,203**	**140**	**97**	**8,795**	**196**	**151**	**11,267**
Pentanes Plus	425	760	355	31	23	1,594	63	16	1,911
Liquefied Petroleum Gases	554	4,616	1,848	109	74	7,201	133	135	9,356
Ethane	93	1,292	95	40	4	1,524	5	0	1,951
Propane	195	1,223	484	37	42	1,981	81	125	2,972
Normal Butane	223	1,449	367	26	25	2,090	40	6	2,627
Isobutane	43	652	902	6	3	1,606	7	4	1,806

Sources: See Explanatory Notes.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1990
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	39,591	3,022	42,613	64,353	10,520	22,443	97,316
Natural Gas Liquids	**0**	**0**	**0**	**2,173**	**209**	**1,361**	**3,743**
Pentanes Plus	0	0	0	591	63	824	1,478
Liquefied Petroleum Gases	0	0	0	1,582	146	537	2,265
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	65	0	0	65
Normal Butane	0	0	0	555	75	181	811
Isobutane	0	0	0	962	71	356	1,389
Other Liquids	**5,473**	**183**	**5,656**	**759**	**287**	**-163**	**883**
Other Hydrocarbons/Alcohol	102	2	104	51	4	26	81
Unfinished Oils (net)	5,608	238	5,846	533	33	243	809
Motor Gasoline Blend. Comp. (net)	-237	-57	-294	130	250	-431	-51
Aviation Gasoline Blend. Comp. (net)	0	0	0	45	0	-1	44
Total Input to Refineries	**45,064**	**3,205**	**48,269**	**67,285**	**11,016**	**23,641**	**101,942**
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,298	101	1,399	2,166	352	754	3,272
Operable Capacity (daily average)	1,381	124	1,505	2,282	343	740	3,365
Operable Utilization Rate (percent)[a,b]	94.0	81.8	93.0	95.0	102.7	101.8	97.2
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	550	17	568	796	119	245	1,159
Catalytic Hydrocracking	62	4	67	133	0	7	141
Delayed and Fluid Coking	75	0	75	144	42	50	236
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.21	0.63	1.17	1.00	1.76	0.60	0.99
API Gravity, Weighted Average (degrees)	30.21	37.46	30.72	33.98	31.21	36.30	34.21
Operable Capacity (daily average)	**1,381**	**124**	**1,505**	**2,282**	**343**	**740**	**3,365**
Operating	1,381	124	1,505	2,193	343	740	3,276
Idle	0	0	0	89	0	0	89
Alaskan Crude Oil Receipts	**0**	**0**	**0**	**118**	**0**	**511**	**629**

See footnotes at end of table.

Table 18. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1990 (Continued)

(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil	16,369	85,996	75,307	5,562	2,226	185,460	14,680	83,082	423,151
Natural Gas Liquids	1,378	3,653	2,768	288	204	8,291	561	1,816	14,411
Pentanes Plus	881	1,439	501	173	154	3,148	131	700	5,457
Liquefied Petroleum Gases	497	2,214	2,267	115	50	5,143	430	1,116	8,954
Ethane	0	0	0	0	0	0	0	0	0
Propane	0	77	0	0	0	77	0	0	142
Normal Butane	147	921	1,105	11	0	2,184	322	658	3,975
Isobutane	350	1,216	1,162	104	50	2,882	108	458	4,837
Other Liquids	-98	10,755	-436	156	32	10,409	-464	661	17,145
Other Hydrocarbons/Alcohol	202	816	302	2	34	1,356	8	454	2,003
Unfinished Oils (net)	-35	10,241	-838	191	52	9,611	-162	699	16,803
Motor Gasoline Blend. Comp. (net)	-265	-302	104	-37	-54	-554	-310	-498	-1,707
Aviation Gasoline Blend. Comp. (net)	0	0	-4	0	0	-4	0	6	46
Total Input to Refineries	17,649	100,404	77,639	6,006	2,462	204,160	14,777	85,559	454,707
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	548	2,892	2,559	181	74	6,255	492	2,882	14,301
Operable Capacity (daily average)	598	3,332	2,922	255	78	7,184	555	3,103	15,712
Operable Utilization Rate (percent)[a,b]	91.6	86.8	87.6	71.2	95.4	87.1	88.7	92.9	91.0
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	192	1,246	811	31	27	2,306	173	714	4,920
Catalytic Hydrocracking	24	147	192	0	0	363	5	421	997
Delayed and Fluid Coking	10	177	363	12	0	562	29	489	1,392
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.69	0.96	1.31	1.48	0.76	1.09	0.85	1.03	1.05
API Gravity, Weighted Average (degrees)	38.37	33.43	31.33	33.55	39.49	33.07	35.60	25.60	31.74
Operable Capacity (daily average)	598	3,332	2,922	255	78	7,184	555	3,103	15,712
Operating	556	3,280	2,583	228	78	6,725	540	3,065	15,111
Idle	42	52	339	27	0	460	15	38	602
Alaskan Crude Oil Receipts	0	2,895	2,148	0	0	5,043	0	43,152	48,824

[a] Represents gross input divided by operable capacity.

[b] See Table H2 in the Highlights Section for additional information concerning utilization rates.

(s) = Less than 500 barrels.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, September 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	1,370	2	1,372	2,493	242	418	3,153
Ethane/Ethylene	133	0	133	31	0	0	31
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,243	27	1,270	2,339	234	597	3,170
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	9	-21	-12	108	6	-179	-65
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane	-15	-4	-19	15	2	0	17
Finished Motor Gasoline	19,728	1,118	20,846	37,155	5,681	12,233	55,069
Leaded	124	31	155	398	273	758	1,429
Unleaded	19,604	1,087	20,691	36,757	5,408	11,475	53,640
Finished Aviation Gasoline	12	0	12	126	36	18	180
Jet Fuel	2,872	45	2,917	4,507	632	1,735	6,874
Naphtha-Type	306	45	351	138	25	335	498
Kerosene-Type	2,566	0	2,566	4,369	607	1,400	6,376
Kerosene	140	72	212	378	16	11	405
Distillate Fuel Oil	10,834	1,042	11,876	12,564	2,655	5,901	21,120
Residual Fuel Oil	3,853	77	3,930	1,923	323	182	2,428
Less than 0.31 percent sulfur	939	35	974	63	0	0	63
0.31 to 1.00 percent sulfur	1,814	0	1,814	219	0	61	280
Greater than 1.00 percent sulfur	1,100	42	1,142	1,641	323	121	2,085
Naphtha for Petrochemical Feedstock Use	485	0	485	576	0	66	642
Other Oils for Petrochemical Feedstock Use	14	0	14	706	0	96	802
Special Naphthas	23	35	58	89	0	294	383
Lubricants	388	287	675	377	0	169	546
Naphthenic	181	0	181	0	0	0	0
Paraffinic	207	287	494	377	0	169	546
Waxes	0	92	92	-14	0	23	9
Petroleum Coke	1,325	23	1,348	2,231	161	738	3,130
Marketable	357	0	357	1,168	5	459	1,632
Catalyst	968	23	991	1,063	156	279	1,498
Asphalt and Road Oil	3,742	244	3,986	3,901	1,030	1,237	6,168
Still Gas	1,740	153	1,893	3,125	396	1,040	4,561
Miscellaneous Products	272	34	306	284	39	50	373
Fuel Use	9	0	9	0	0	0	0
Nonfuel Use	263	34	297	284	39	50	373
Total	**46,798**	**3,224**	**50,022**	**70,421**	**11,211**	**24,211**	**105,843**
Processing Gain(-) or Loss(+)[a]	-1,734	-19	-1,753	-3,136	-195	-570	-3,901

See footnotes at end of table.

Table 19. Net Refinery Production of Finished Petroleum Products by PAD and Refining Districts, September 1990 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	U. S. Total
Liquefied Refinery Gases	502	5,119	2,667	99	98	8,485	260	2,165	15,435
Ethane/Ethylene	-56	354	153	0	0	451	0	46	661
Ethane	W	W	W	W	W	W	W	W	477
Ethylene	W	W	W	W	W	W	W	W	184
Propane/Propylene	596	3,826	2,248	70	58	6,798	220	1,064	12,522
Propane	W	W	W	W	W	W	W	W	9,459
Propylene	W	W	W	W	W	W	W	W	3,063
Normal Butane/Butylene	-239	719	267	27	31	805	45	923	1,696
Normal Butane	W	W	W	W	W	W	W	W	1,687
Butylene	W	W	W	W	W	W	W	W	9
Isobutane	201	220	-1	2	9	431	-5	132	556
Finished Motor Gasoline	9,573	48,620	35,946	1,778	1,310	97,227	6,930	37,450	217,522
Leaded	743	193	265	2	293	1,496	1,812	5,887	10,779
Unleaded	8,830	48,427	35,681	1,776	1,017	95,731	5,118	31,563	206,743
Finished Aviation Gasoline	93	128	112	0	0	333	21	213	759
Jet Fuel	2,100	9,388	9,537	268	360	21,653	1,240	13,107	45,791
Naphtha-Type	745	1,701	721	178	310	3,655	447	1,348	6,299
Kerosene-Type	1,355	7,687	8,816	90	50	17,998	793	11,759	39,492
Kerosene	39	849	589	16	0	1,493	18	121	2,249
Distillate Fuel Oil	3,605	16,767	16,153	1,671	527	38,723	4,020	13,265	89,004
Residual Fuel Oil	367	5,684	3,646	328	28	10,053	288	10,583	27,282
Less than 0.31 percent sulfur	131	0	855	81	17	1,084	55	1,122	3,298
0.31 to 1.00 percent sulfur	158	1,537	451	185	11	2,342	14	884	5,334
Greater than 1.00 percent sulfur	78	4,147	2,340	62	0	6,627	219	8,577	18,650
Naphtha for Petrochemical Feedstock Use	101	3,335	50	0	-5	3,481	0	156	4,764
Other Oils for Petrochemical Feedstock Use	162	3,680	2,007	0	0	5,849	2	276	6,943
Special Naphthas	100	584	-19	129	0	794	0	116	1,351
Lubricants	39	2,225	716	475	0	3,455	-1	689	5,364
Naphthenic	39	640	0	368	0	1,047	0	313	1,541
Paraffinic	0	1,585	716	107	0	2,408	-1	376	3,823
Waxes	8	196	77	68	0	349	95	74	619
Petroleum Coke	349	3,062	3,773	116	20	7,320	353	4,367	16,518
Marketable	54	1,389	2,910	71	0	4,424	157	3,310	9,880
Catalyst	295	1,673	863	45	20	2,896	196	1,057	6,638
Asphalt and Road Oil	411	1,010	1,788	919	97	4,225	1,220	2,288	17,887
Still Gas	658	4,953	3,338	191	89	9,229	641	4,798	21,122
Miscellaneous Products	55	551	582	0	0	1,188	58	142	2,067
Fuel Use	1	0	122	0	0	123	0	0	132
Nonfuel Use	54	551	460	0	0	1,065	58	142	1,935
Total	**18,162**	**106,151**	**80,962**	**6,058**	**2,524**	**213,857**	**15,145**	**89,810**	**474,677**
Processing Gain(-) or Loss(+)[a]	-513	-5,747	-3,323	-52	-62	-9,697	-368	-4,251	-19,970

[a] Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Sources: See Explanatory Notes.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1990
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	**13,981**	**699**	**14,680**	**7,941**	**2,029**	**2,478**	**12,448**
Petroleum Products	**45,250**	**2,548**	**47,798**	**41,181**	**5,863**	**16,937**	**63,981**
Pentanes Plus	14	0	14	133	58	147	338
Liquefied Petroleum Gases	1,634	20	1,654	3,216	233	474	3,923
Ethane/Ethylene	31	0	31	1	0	0	1
Propane/Propylene	1,009	2	1,011	1,988	38	68	2,094
Normal Butane/Butylene	518	14	532	1,016	91	301	1,408
Isobutane	76	4	80	211	104	105	420
Other Hydrocarbons and Alcohol	158	4	162	210	1	52	263
Unfinished Oils	13,440	1,014	14,454	11,087	535	5,207	16,829
Naphthas and Lighter	3,226	323	3,549	2,816	188	1,284	4,288
Kerosene and Light Gas Oils	2,465	180	2,645	1,970	57	215	2,242
Heavy Gas Oils	7,068	357	7,425	3,603	286	2,379	6,268
Residuum	681	154	835	2,698	4	1,329	4,031
Motor Gasoline Blending Components	4,877	120	4,997	5,464	590	2,577	8,631
Aviation Gasoline Blending Components	0	0	0	24	0	39	63
Finished Motor Gasoline	8,001	343	8,344	6,550	1,439	3,110	11,099
Leaded	0	12	12	169	106	464	739
Unleaded	8,001	331	8,332	6,381	1,333	2,646	10,360
Finished Aviation Gasoline	16	0	16	117	23	35	175
Jet Fuel	2,100	61	2,161	1,598	259	638	2,495
Naphtha-Type	142	61	203	213	37	162	412
Kerosene-Type	1,958	0	1,958	1,385	222	476	2,083
Kerosene	168	59	227	538	94	292	924
Distillate Fuel Oil	8,951	337	9,288	5,128	1,513	2,450	9,091
Residual Fuel Oil	2,507	62	2,569	2,314	335	145	2,794
Less than 0.31 percent sulfur	844	46	890	26	0	0	26
0.31 to 1.00 percent sulfur	668	0	668	370	0	84	454
Greater than 1.00 percent sulfur	995	16	1,011	1,918	335	61	2,314
Naphtha for Petrochemical Feedstock Use	163	0	163	175	0	76	251
Other Oils for Petrochemical Feedstock Use	3	0	3	0	0	81	81
Special Naphthas	91	38	129	74	0	172	246
Lubricants	356	281	637	644	0	0	644
Waxes	0	59	59	119	0	18	137
Petroleum Coke (Marketable)	591	0	591	971	14	597	1,582
Asphalt and Road Oil	1,993	114	2,107	2,648	762	812	4,222
Miscellaneous Products	187	36	223	171	7	15	193
Total Stocks, All Oils	**59,231**	**3,247**	**62,478**	**49,122**	**7,892**	**19,415**	**76,429**

See footnotes at end of table.

Table 20. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, September 1990 (Continued)

(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	U. S. Total
Crude Oil	1,203	30,850	18,292	1,247	292	51,884	1,584	21,604	102,200
Petroleum Products	11,259	79,424	53,608	5,006	1,275	150,572	9,941	63,918	336,210
Pentanes Plus	172	183	111	12	25	503	3	15	873
Liquefied Petroleum Gases	2,575	3,631	4,964	96	82	11,348	536	1,319	18,780
Ethane/Ethylene	69	782	0	0	0	851	0	0	883
Propane/Propylene	1,228	1,415	1,181	7	6	3,837	145	85	7,172
Normal Butane/Butylene	943	638	3,069	79	70	4,799	299	954	7,992
Isobutane	335	796	714	10	6	1,861	92	280	2,733
Other Hydrocarbons and Alcohol	73	349	87	0	16	525	182	179	1,311
Unfinished Oils	2,601	29,640	21,144	790	196	54,371	2,136	25,286	113,076
Naphthas and Lighter	994	7,132	5,689	214	38	14,067	607	4,114	26,625
Kerosene and Light Gas Oils	350	6,063	2,817	43	3	9,276	493	4,947	19,603
Heavy Gas Oils	753	10,600	8,983	471	155	20,962	716	12,131	47,502
Residuum	504	5,845	3,655	62	0	10,066	320	4,094	19,346
Motor Gasoline Blending Components	1,190	8,359	6,150	213	245	16,157	1,812	7,471	39,068
Aviation Gasoline Blending Components	0	0	84	0	0	84	0	6	153
Finished Motor Gasoline	1,867	11,486	5,302	597	177	19,429	1,716	8,911	49,499
Leaded	223	104	52	1	32	412	654	1,927	3,744
Unleaded	1,644	11,382	5,250	596	145	19,017	1,062	6,984	45,755
Finished Aviation Gasoline	115	230	126	0	0	471	34	181	877
Jet Fuel	653	4,261	3,170	168	197	8,449	584	4,393	18,082
Naphtha-Type	232	813	364	117	121	1,647	274	577	3,113
Kerosene-Type	421	3,448	2,806	51	76	6,802	310	3,816	14,969
Kerosene	51	464	391	41	0	947	27	51	2,176
Distillate Fuel Oil	1,056	8,816	4,062	1,151	154	15,239	1,433	5,431	40,482
Residual Fuel Oil	307	3,331	3,023	217	28	6,906	474	5,350	18,093
Less than 0.31 percent sulfur	50	0	1,287	4	25	1,366	31	587	2,900
0.31 to 1.00 percent sulfur	89	675	312	138	3	1,217	254	625	3,218
Greater than 1.00 percent sulfur	168	2,656	1,424	75	0	4,323	189	4,138	11,975
Naphtha for Petrochemical Feedstock Use	16	717	183	0	5	921	0	94	1,429
Other Oils for Petrochemical Feedstock Use	117	1,486	196	0	0	1,799	2	149	2,034
Special Naphthas	110	1,104	20	84	0	1,318	6	94	1,793
Lubricants	15	3,586	956	385	0	4,942	33	1,001	7,257
Waxes	9	246	180	21	0	456	185	137	974
Petroleum Coke (Marketable)	14	417	2,329	383	0	3,143	53	1,883	7,252
Asphalt and Road Oil	287	776	675	848	150	2,736	706	1,869	11,640
Miscellaneous Products	31	342	455	0	0	828	19	98	1,361
Total Stocks, All Oils	12,462	110,274	71,900	6,253	1,567	202,456	11,525	85,522	438,410

Note: Stocks are reported as of the last day of the month.
Sources: See Explanatory Notes.

Table 21. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,[a] September 1990

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn.,Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	3.0	0.1	2.8	3.8	2.3	1.8	3.2
Finished Motor Gasoline[b]	43.9	36.0	43.4	53.6	49.4	49.7	52.3
Finished Aviation Gasoline[c]	0.0	0.0	0.0	0.1	0.3	0.1	0.1
Naphtha-Type Jet Fuel	0.7	1.4	0.7	0.2	0.2	1.5	0.5
Kerosene-Type Jet Fuel	5.7	0.0	5.3	6.7	5.8	6.2	6.5
Kerosene	0.3	2.2	0.4	0.6	0.2	0.0	0.4
Distillate Fuel Oil	24.0	32.0	24.5	19.4	25.2	26.0	21.5
Residual Fuel Oil	8.5	2.4	8.1	3.0	3.1	0.8	2.5
Naphtha for Petrochemical Feedstock Use	1.1	0.0	1.0	0.9	0.0	0.3	0.7
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.1	0.0	0.4	0.8
Special Naphthas	0.1	1.1	0.1	0.1	0.0	1.3	0.4
Lubricants	0.9	8.8	1.4	0.6	0.0	0.7	0.6
Waxes	0.0	2.8	0.2	0.0	0.0	0.1	0.0
Petroleum Coke	2.9	0.7	2.8	3.4	1.5	3.3	3.2
Asphalt and Road Oil	8.3	7.5	8.2	6.0	9.8	5.5	6.3
Still Gas	3.8	4.7	3.9	4.8	3.8	4.6	4.6
Miscellaneous Products	0.6	1.0	0.6	0.4	0.4	0.2	0.4
Processing Gain(-) or Loss(+)[d]	-3.8	-0.6	-3.6	-4.8	-1.8	-2.5	-4.0

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U. S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	3.1	5.3	3.6	1.7	4.3	4.3	1.8	2.6	3.5
Finished Motor Gasoline[b]	50.6	46.2	44.0	26.5	49.4	45.2	45.9	42.6	46.1
Finished Aviation Gasoline[c]	0.6	0.1	0.2	0.0	0.0	0.2	0.1	0.2	0.2
Naphtha-Type Jet Fuel	4.6	1.8	1.0	3.1	13.6	1.9	3.1	1.6	1.4
Kerosene-Type Jet Fuel	8.3	8.0	11.8	1.6	2.2	9.2	5.5	14.0	9.0
Kerosene	0.2	0.9	0.8	0.3	0.0	0.8	0.1	0.1	0.5
Distillate Fuel Oil	22.1	17.4	21.7	29.0	23.1	19.9	27.7	15.8	20.2
Residual Fuel Oil	2.2	5.9	4.9	5.7	1.2	5.2	2.0	12.6	6.2
Naphtha for Petrochemical Feedstock Use	0.6	3.5	0.1	0.0	-0.2	1.8	0.0	0.2	1.1
Other Oils for Petrochemical Feedstock Use	1.0	3.8	2.7	0.0	0.0	3.0	0.0	0.3	1.6
Special Naphthas	0.6	0.6	0.0	2.2	0.0	0.4	0.0	0.1	0.3
Lubricants	0.2	2.3	1.0	8.3	0.0	1.8	0.0	0.8	1.2
Waxes	0.0	0.2	0.1	1.2	0.0	0.2	0.7	0.1	0.1
Petroleum Coke	2.1	3.2	5.1	2.0	0.9	3.8	2.4	5.2	3.8
Asphalt and Road Oil	2.5	1.0	2.4	16.0	4.3	2.2	8.4	2.7	4.1
Still Gas	4.0	5.1	4.5	3.3	3.9	4.7	4.4	5.7	4.8
Miscellaneous Products	0.3	0.6	0.8	0.0	0.0	0.6	0.4	0.2	0.5
Processing Gain(-) or Loss(+)[d]	-3.1	-6.0	-4.5	-0.9	-2.7	-5.0	-2.5	-5.1	-4.5

[a] Based on crude oil input and net reruns of unfinished oils.

[b] Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.

[c] Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

[d] Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 22. Imports of Residual Fuel Oil by Sulfur Content and by State of Entry, September 1990
(Thousand Barrels)

State	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	**1,729**	**2,052**	**4,967**	**8,748**
Florida	0	466	367	833
Maine	0	0	458	458
Maryland	0	274	565	839
Massachusetts	0	232	356	588
New Jersey	421	0	713	1,134
New York	1,080	943	1,221	3,244
North Carolina	79	1	319	399
Pennsylvania	0	136	45	181
South Carolina	0	0	197	197
Vermont	0	0	13	13
Virginia	149	0	713	862
PAD District III	**0**	**0**	**362**	**362**
Texas	0	0	362	362
PAD District V	**0**	**207**	**0**	**207**
Hawaii	0	207	0	207
U.S. Total	**1,729**	**2,259**	**5,329**	**9,317**

Sources: See Explanatory Notes.

Table 23. Imports of Crude Oil and Petroleum Products by PAD District, September 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	36,613	30,108	94,932	2,500	5,525	169,678	5,656
Natural Gas Liquids	724	1,583	1,759	314	148	4,528	151
Pentanes Plus	0	37	0	90	0	127	4
Liquefied Petroleum Gases	724	1,546	1,759	224	148	4,401	147
Ethane/Ethylene	0	400	0	0	0	400	13
Propane/Propylene	555	934	648	82	64	2,283	76
Normal Butane/Butylene	166	208	755	124	32	1,285	43
Isobutane	3	4	356	18	52	433	14
Other Liquids	3,903	0	9,414	0	55	13,372	446
Unfinished Oils[a]	2,575	0	8,874	0	55	11,504	383
Naphthas and Lighter	0	0	2,741	0	0	2,741	91
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	1,965	0	1,692	0	55	3,712	124
Residuum	610	0	4,441	0	0	5,051	168
Motor Gasoline Blending Components	1,328	0	540	0	0	1,868	62
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	25,721	622	4,727	139	1,281	32,490	1,083
Finished Motor Gasoline	7,088	185	0	40	293	7,606	254
Leaded	0	0	0	6	0	6	(s)
Unleaded	7,088	185	0	34	293	7,600	253
Finished Aviation Gasoline	1	0	0	0	1	2	(s)
Jet Fuel	1,610	51	254	0	528	2,443	81
Naphtha-Type	247	51	0	0	0	298	10
Kerosene-Type	1,363	0	254	0	528	2,145	72
Bonded Aircraft Fuel	816	0	0	0	440	1,256	42
Other	547	0	254	0	88	889	30
Kerosene	19	0	0	0	0	19	1
Distillate Fuel Oil	6,342	155	0	99	193	6,789	226
Bonded Ship Bunkers	0	0	0	2	0	2	(s)
Other	6,342	155	0	97	193	6,787	226
Residual Fuel Oil	8,748	0	362	0	207	9,317	311
Bonded Ship Bunkers	0	0	0	0	0	0	0
Other	8,748	0	362	0	207	9,317	311
Naphtha for Petrochemical Feedstock Use	148	74	434	0	0	656	22
Other Oils for Petrochemical Feedstock Use	0	0	3,602	0	0	3,602	120
Special Naphthas	8	88	25	0	12	133	4
Lubricants	291	37	0	0	0	328	11
Waxes	23	3	1	0	5	32	1
Petroleum Coke	0	0	0	0	39	39	1
Asphalt and Road Oil	1,407	16	49	0	3	1,475	49
Miscellaneous Products	36	13	0	0	0	49	2
Total	66,961	32,313	110,832	2,953	7,009	220,068	7,336

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 24. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January-September 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a,b]	343,723	316,094	943,928	20,397	66,559	1,690,701	6,193
Natural Gas Liquids	9,981	19,331	19,865	2,339	1,230	52,746	193
Pentanes Plus	822	309	276	822	0	2,229	8
Liquefied Petroleum Gases	9,159	19,022	19,589	1,517	1,230	50,517	185
Ethane/Ethylene	0	400	886	0	0	1,286	5
Propane/Propylene	8,410	14,147	8,072	866	700	32,195	118
Normal Butane/Butylene	679	3,898	7,399	520	207	12,703	47
Isobutane	70	577	3,232	131	323	4,333	16
Other Liquids	45,218	97	78,161	5	1,385	124,866	457
Unfinished Oils[a]	29,402	0	75,359	5	889	105,655	387
Naphthas and Lighter	2,106	0	20,042	5	0	22,153	81
Kerosene and Light Gas Oils	0	0	0	0	0	0	0
Heavy Gas Oils	24,767	0	18,274	0	689	43,730	160
Residuum	2,529	0	37,043	0	200	39,772	146
Motor Gasoline Blending Components	15,816	97	2,802	0	496	19,211	70
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	331,590	5,356	65,999	985	14,888	418,818	1,534
Finished Motor Gasoline	87,360	1,377	5,172	381	4,323	98,613	361
Leaded	0	0	25	56	301	382	1
Unleaded	87,360	1,377	5,147	325	4,022	98,231	360
Finished Aviation Gasoline	12	0	0	0	28	40	(s)
Jet Fuel	21,558	471	5,910	0	2,374	30,313	111
Naphtha-Type	247	441	0	0	21	709	3
Kerosene-Type	21,311	30	5,910	0	2,353	29,604	108
Bonded Aircraft Fuel	7,371	30	4,556	0	1,939	13,896	51
Other	13,940	0	1,354	0	414	15,708	58
Kerosene	989	0	442	0	0	1,431	5
Distillate Fuel Oil	76,683	1,657	440	545	1,222	80,547	295
Bonded Ship Bunkers	119	0	0	13	0	132	(s)
Other	76,564	1,657	440	532	1,222	80,415	295
Residual Fuel Oil	131,355	543	7,366	59	6,165	145,488	533
Bonded Ship Bunkers	327	0	0	0	0	327	1
Other	131,028	543	7,366	59	6,165	145,161	532
Naphtha for Petrochemical Feedstock Use	2,262	455	16,332	0	297	19,346	71
Other Oils for Petrochemical Feedstock Use	0	0	27,843	0	0	27,843	102
Special Naphthas	128	396	1,777	0	73	2,374	9
Lubricants	2,240	227	93	0	70	2,630	10
Waxes	229	46	14	0	20	309	1
Petroleum Coke	0	0	273	0	300	573	2
Asphalt and Road Oil	8,338	121	335	0	16	8,810	32
Miscellaneous Products	436	63	2	0	0	501	2
Total	730,512	340,878	1,107,953	23,726	84,062	2,287,131	8,378

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] September 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**47,625**	**766**	**3,759**	**0**	**911**	**326**	**0**	**325**	**136**	**0**	**461**
Algeria	2,071	766	1,466	0	0	0	0	325	136	0	461
Iraq	9,527	0	0	0	0	0	0	0	0	0	0
Kuwait	983	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	35,044	0	2,293	0	911	326	0	0	0	0	0
Other OPEC	**50,461**	**0**	**782**	**537**	**2,192**	**1,055**	**2,790**	**228**	**428**	**1,076**	**1,732**
Ecuador	1,098	0	0	0	0	0	0	0	0	179	179
Gabon	1,763	0	0	0	0	0	0	0	0	0	0
Indonesia	3,341	0	0	0	0	0	0	0	0	0	0
Nigeria	22,291	0	0	0	0	0	0	0	355	0	355
Venezuela	21,968	0	782	537	2,192	1,055	2,790	228	73	897	1,198
Non OPEC	**71,592**	**3,635**	**6,963**	**1,331**	**4,503**	**1,062**	**3,999**	**1,176**	**1,695**	**4,253**	**7,124**
Angola	3,680	0	0	0	0	0	0	359	0	0	359
Argentina	0	0	28	394	0	0	0	0	0	0	0
Australia	1,343	368	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	567	583	201	1,351
Belgium	0	0	293	258	0	0	0	0	0	0	0
Brazil	0	0	0	0	251	0	0	0	0	0	0
Brunei	215	0	0	0	0	0	0	0	0	0	0
Cameroon	1,266	0	0	0	0	0	0	0	0	0	0
Canada	18,957	2,084	341	57	1,852	274	1,672	250	240	1,014	1,504
China, People's Republic of	1,272	0	0	0	149	0	0	0	0	0	0
Colombia	2,515	0	0	0	0	0	0	0	58	327	385
Congo	882	0	0	0	0	0	0	0	0	0	0
Egypt	699	0	221	0	0	0	0	0	0	0	0
France	0	0	301	0	0	0	0	0	71	0	71
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0	0
Guatemala	222	0	0	0	0	0	0	0	0	0	0
India	0	0	761	0	0	0	0	0	0	0	0
Italy	0	0	963	0	0	0	0	0	0	165	165
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	3,135	0	0	0	0	0	0	0	0	0	0
Mexico	24,211	1,157	0	441	0	88	201	0	0	0	0
Netherlands	0	26	504	52	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	244	0	0	0	0	400	400
Norway	3,565	0	0	0	0	0	0	0	0	0	0
Oman	1,125	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	0	323	323
Puerto Rico	0	0	34	0	0	0	0	0	111	0	111
Singapore	0	0	0	0	0	0	0	0	207	0	207
Spain	0	0	219	0	479	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	0	0	203	0	0	0	0	0	0	0	0
Thailand	726	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,088	0	0	0	0	0	204	0	0	381	381
Turkey	0	0	0	0	0	0	0	0	0	362	362
United Kingdom	4,642	0	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,467	0	0	0	0	0	0	0	0
Virgin Islands	0	0	1,411	129	1,528	700	1,922	0	425	1,080	1,505
Zaire	1,049	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**169,678**	**4,401**	**11,504**	**1,868**	**7,606**	**2,443**	**6,789**	**1,729**	**2,259**	**5,329**	**9,317**

See footnotes at end of table.

Table 25. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] September 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	3,602	0	0	0	9,825	57,450	1,915
Algeria	0	0	0	3,602	0	0	0	6,295	8,366	279
Iraq	0	0	0	0	0	0	0	0	9,527	318
Kuwait	0	0	0	0	0	0	0	0	983	33
Saudi Arabia	0	0	0	0	0	0	0	3,530	38,574	1,286
Other OPEC	0	0	219	0	0	874	0	10,181	60,642	2,021
Ecuador	0	0	0	0	0	0	0	179	1,277	43
Gabon	0	0	0	0	0	0	0	0	1,763	59
Indonesia	0	0	0	0	0	0	0	0	3,341	111
Nigeria	0	0	0	0	0	0	0	355	22,646	755
Venezuela	0	0	219	0	0	874	0	9,647	31,615	1,054
Non OPEC	19	133	437	0	328	601	249	30,384	101,976	3,399
Angola	0	0	0	0	0	0	0	359	4,039	135
Argentina	0	0	0	0	0	0	0	422	422	14
Australia	0	0	0	0	0	0	0	368	1,711	57
Bahama Islands	0	0	0	0	0	0	0	1,351	1,351	45
Belgium	0	0	0	0	0	0	0	551	551	18
Brazil	0	0	0	0	0	0	3	254	254	8
Brunei	0	0	0	0	0	0	0	0	215	7
Cameroon	0	0	0	0	0	0	0	0	1,266	42
Canada	19	133	81	0	67	229	198	8,511	27,468	916
China, People's Republic of	0	0	0	0	0	0	0	149	1,421	47
Colombia	0	0	0	0	0	0	0	385	2,900	97
Congo	0	0	0	0	0	0	0	0	882	29
Egypt	0	0	0	0	0	0	2	223	922	31
France	0	0	21	0	0	0	0	393	393	13
Germany, FR (W)	0	0	0	0	0	0	3	220	220	7
Guatemala	0	0	0	0	0	0	0	0	222	7
India	0	0	127	0	0	0	0	888	888	30
Italy	0	0	0	0	0	0	0	1,128	1,128	38
Japan	0	0	7	0	0	0	2	9	9	(s)
Malaysia	0	0	0	0	0	0	0	0	3,135	105
Mexico	0	0	0	0	0	12	5	1,904	26,115	871
Netherlands	0	0	27	0	0	0	0	609	609	20
Netherlands Antilles	0	0	0	0	0	360	0	1,004	1,004	33
Norway	0	0	0	0	0	0	0	0	3,565	119
Oman	0	0	0	0	0	0	0	0	1,125	38
Peru	0	0	0	0	0	0	0	323	323	11
Puerto Rico	0	0	156	0	261	0	35	597	597	20
Singapore	0	0	0	0	0	0	0	207	207	7
Spain	0	0	0	0	0	0	0	698	698	23
Sweden	0	0	18	0	0	0	0	18	18	1
Syria	0	0	0	0	0	0	0	203	203	7
Thailand	0	0	0	0	0	0	0	0	726	24
Trinidad and Tobago	0	0	0	0	0	0	0	585	2,673	89
Turkey	0	0	0	0	0	0	0	362	362	12
United Kingdom	0	0	0	0	0	0	0	0	4,642	155
U.S.S.R.	0	0	0	0	0	0	0	1,467	1,467	49
Virgin Islands	0	0	0	0	0	0	0	7,195	7,195	240
Zaire	0	0	0	0	0	0	0	0	1,049	35
Other	0	0	0	0	0	0	1	1	1	(s)
Total	19	133	656	3,602	328	1,475	249	50,390	220,068	7,336

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**7,409**	**558**	**610**	**0**	**911**	**125**	**0**	**325**	**136**	**0**	**461**
Algeria	0	558	610	0	0	0	0	325	136	0	461
Saudi Arabia	7,409	0	0	0	911	125	0	0	0	0	0
Other OPEC	**19,120**	**0**	**0**	**0**	**2,192**	**816**	**2,790**	**228**	**428**	**1,076**	**1,732**
Ecuador	739	0	0	0	0	0	0	0	0	179	179
Gabon	1,763	0	0	0	0	0	0	0	0	0	0
Nigeria	12,488	0	0	0	0	0	0	0	355	0	355
Venezuela	4,130	0	0	0	2,192	816	2,790	228	73	897	1,198
Non OPEC	**10,084**	**166**	**1,965**	**1,328**	**3,985**	**669**	**3,552**	**1,176**	**1,488**	**3,891**	**6,555**
Angola	274	0	0	0	0	0	0	359	0	0	359
Argentina	0	0	0	394	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	567	583	201	1,351
Belgium	0	0	0	258	0	0	0	0	0	0	0
Brazil	0	0	0	0	251	0	0	0	0	0	0
Canada	1,720	166	250	57	1,483	223	1,225	250	240	1,014	1,504
China, People's Republic of	660	0	0	0	0	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	58	327	385
Egypt	699	0	0	0	0	0	0	0	0	0	0
France	0	0	134	0	0	0	0	0	71	0	71
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	165	165
Japan	0	0	0	0	0	0	0	0	0	0	0
Mexico	3,499	0	0	438	0	0	201	0	0	0	0
Netherlands	0	0	218	52	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	244	0	0	0	0	400	400
Norway	2,059	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	0	323	323
Puerto Rico	0	0	34	0	0	0	0	0	111	0	111
Spain	0	0	219	0	479	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	204	0	0	381	381
United Kingdom	523	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	1,110	129	1,528	446	1,922	0	425	1,080	1,505
Zaire	650	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**36,613**	**724**	**2,575**	**1,328**	**7,088**	**1,610**	**6,342**	**1,729**	**2,052**	**4,967**	**8,748**

See footnotes at end of table.

Table 26. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,665**	**10,074**	**336**
Algeria	0	0	0	0	0	0	0	1,629	1,629	54
Saudi Arabia	0	0	0	0	0	0	0	1,036	8,445	282
Other OPEC	**0**	**0**	**0**	**0**	**0**	**837**	**0**	**8,367**	**27,487**	**916**
Ecuador	0	0	0	0	0	0	0	179	918	31
Gabon	0	0	0	0	0	0	0	0	1,763	59
Nigeria	0	0	0	0	0	0	0	355	12,843	428
Venezuela	0	0	0	0	0	837	0	7,833	11,963	399
Non OPEC	**19**	**8**	**148**	**0**	**291**	**570**	**60**	**19,316**	**29,400**	**980**
Angola	0	0	0	0	0	0	0	359	633	21
Argentina	0	0	0	0	0	0	0	394	394	13
Bahama Islands	0	0	0	0	0	0	0	1,351	1,351	45
Belgium	0	0	0	0	0	0	0	258	258	9
Brazil	0	0	0	0	0	0	3	254	254	8
Canada	19	8	7	0	30	210	15	5,197	6,917	231
China, People's Republic of	0	0	0	0	0	0	0	0	660	22
Colombia	0	0	0	0	0	0	0	385	385	13
Egypt	0	0	0	0	0	0	1	1	700	23
France	0	0	9	0	0	0	0	214	214	7
Germany, FR (W)	0	0	0	0	0	0	3	3	3	(s)
Italy	0	0	0	0	0	0	0	165	165	6
Japan	0	0	0	0	0	0	2	2	2	(s)
Mexico	0	0	0	0	0	0	0	639	4,138	138
Netherlands	0	0	0	0	0	0	0	270	270	9
Netherlands Antilles	0	0	0	0	0	360	0	1,004	1,004	33
Norway	0	0	0	0	0	0	0	0	2,059	69
Peru	0	0	0	0	0	0	0	323	323	11
Puerto Rico	0	0	132	0	261	0	35	573	573	19
Spain	0	0	0	0	0	0	0	698	698	23
Trinidad and Tobago	0	0	0	0	0	0	0	585	585	20
United Kingdom	0	0	0	0	0	0	0	0	523	17
Virgin Islands	0	0	0	0	0	0	0	6,640	6,640	221
Zaire	0	0	0	0	0	0	0	0	650	22
Other	0	0	0	0	0	0	1	1	1	(s)
Total	**19**	**8**	**148**	**0**	**291**	**1,407**	**60**	**30,348**	**66,961**	**2,232**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**4,913**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	460	0	0	0	0	0	0	0	0	0	0
Iraq	925	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	3,528	0	0	0	0	0	0	0	0	0	0
Other OPEC	**5,985**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	359	0	0	0	0	0	0	0	0	0	0
Nigeria	1,970	0	0	0	0	0	0	0	0	0	0
Venezuela	3,656	0	0	0	0	0	0	0	0	0	0
Non OPEC	**19,210**	**1,546**	**0**	**0**	**185**	**51**	**155**	**0**	**0**	**0**	**0**
Cameroon	425	0	0	0	0	0	0	0	0	0	0
Canada	14,298	1,546	0	0	185	51	155	0	0	0	0
Colombia	481	0	0	0	0	0	0	0	0	0	0
Mexico	2,371	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,161	0	0	0	0	0	0	0	0	0	0
United Kingdom	474	0	0	0	0	0	0	0	0	0	0
Total	**30,108**	**1,546**	**0**	**0**	**185**	**51**	**155**	**0**	**0**	**0**	**0**

See footnotes at end of table.

Table 27. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,913**	**164**
Algeria	0	0	0	0	0	0	0	0	460	15
Iraq	0	0	0	0	0	0	0	0	925	31
Saudi Arabia	0	0	0	0	0	0	0	0	3,528	118
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,985**	**200**
Ecuador	0	0	0	0	0	0	0	0	359	12
Nigeria	0	0	0	0	0	0	0	0	1,970	66
Venezuela	0	0	0	0	0	0	0	0	3,656	122
Non OPEC	**0**	**88**	**74**	**0**	**37**	**16**	**53**	**2,205**	**21,415**	**714**
Cameroon	0	0	0	0	0	0	0	0	425	14
Canada	0	88	74	0	37	16	53	2,205	16,503	550
Colombia	0	0	0	0	0	0	0	0	481	16
Mexico	0	0	0	0	0	0	0	0	2,371	79
Trinidad and Tobago	0	0	0	0	0	0	0	0	1,161	39
United Kingdom	0	0	0	0	0	0	0	0	474	16
Total	**0**	**88**	**74**	**0**	**37**	**16**	**53**	**2,205**	**32,313**	**1,077**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**35,303**	**208**	**3,149**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Algeria	1,611	208	856	0	0	0	0	0	0	0	0
Iraq	8,602	0	0	0	0	0	0	0	0	0	0
Kuwait	983	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	24,107	0	2,293	0	0	0	0	0	0	0	0
Other OPEC	**23,502**	**0**	**782**	**537**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Indonesia	1,487	0	0	0	0	0	0	0	0	0	0
Nigeria	7,833	0	0	0	0	0	0	0	0	0	0
Venezuela	14,182	0	782	537	0	0	0	0	0	0	0
Non OPEC	**36,127**	**1,551**	**4,943**	**3**	**0**	**254**	**0**	**0**	**0**	**362**	**362**
Angola	3,406	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	28	0	0	0	0	0	0	0	0
Australia	653	368	0	0	0	0	0	0	0	0	0
Belgium	0	0	293	0	0	0	0	0	0	0	0
Cameroon	500	0	0	0	0	0	0	0	0	0	0
Canada	0	0	36	0	0	0	0	0	0	0	0
China, People's Republic of	612	0	0	0	0	0	0	0	0	0	0
Colombia	2,034	0	0	0	0	0	0	0	0	0	0
Congo	882	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	221	0	0	0	0	0	0	0	0
France	0	0	167	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0	0
Guatemala	222	0	0	0	0	0	0	0	0	0	0
India	0	0	761	0	0	0	0	0	0	0	0
Italy	0	0	963	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	1,878	0	0	0	0	0	0	0	0	0	0
Mexico	18,338	1,157	0	3	0	0	0	0	0	0	0
Netherlands	0	26	286	0	0	0	0	0	0	0	0
Norway	1,506	0	0	0	0	0	0	0	0	0	0
Oman	1,125	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0	0	0
Syria	0	0	203	0	0	0	0	0	0	0	0
Trinidad and Tobago	927	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	362	362
United Kingdom	3,645	0	0	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	1,467	0	0	0	0	0	0	0	0
Virgin Islands	0	0	301	0	0	254	0	0	0	0	0
Zaire	399	0	0	0	0	0	0	0	0	0	0
Total	**94,932**	**1,759**	**8,874**	**540**	**0**	**254**	**0**	**0**	**0**	**362**	**362**

See footnotes at end of table.

Table 28. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	0	0	0	3,602	0	0	0	6,959	42,262	1,409
Algeria	0	0	0	3,602	0	0	0	4,666	6,277	209
Iraq	0	0	0	0	0	0	0	0	8,602	287
Kuwait	0	0	0	0	0	0	0	0	983	33
Saudi Arabia	0	0	0	0	0	0	0	2,293	26,400	880
Other OPEC	0	0	219	0	0	37	0	1,575	25,077	836
Indonesia	0	0	0	0	0	0	0	0	1,487	50
Nigeria	0	0	0	0	0	0	0	0	7,833	261
Venezuela	0	0	219	0	0	37	0	1,575	15,757	525
Non OPEC	0	25	215	0	0	12	1	7,366	43,493	1,450
Angola	0	0	0	0	0	0	0	0	3,406	114
Argentina	0	0	0	0	0	0	0	28	28	1
Australia	0	0	0	0	0	0	0	368	1,021	34
Belgium	0	0	0	0	0	0	0	293	293	10
Cameroon	0	0	0	0	0	0	0	0	500	17
Canada	0	25	0	0	0	0	0	61	61	2
China, People's Republic of	0	0	0	0	0	0	0	0	612	20
Colombia	0	0	0	0	0	0	0	0	2,034	68
Congo	0	0	0	0	0	0	0	0	882	29
Egypt	0	0	0	0	0	0	1	222	222	7
France	0	0	12	0	0	0	0	179	179	6
Germany, FR (W)	0	0	0	0	0	0	0	217	217	7
Guatemala	0	0	0	0	0	0	0	0	222	7
India	0	0	127	0	0	0	0	888	888	30
Italy	0	0	0	0	0	0	0	963	963	32
Japan	0	0	7	0	0	0	0	7	7	(s)
Malaysia	0	0	0	0	0	0	0	0	1,878	63
Mexico	0	0	0	0	0	12	0	1,172	19,510	650
Netherlands	0	0	27	0	0	0	0	339	339	11
Norway	0	0	0	0	0	0	0	0	1,506	50
Oman	0	0	0	0	0	0	0	0	1,125	38
Puerto Rico	0	0	24	0	0	0	0	24	24	1
Sweden	0	0	18	0	0	0	0	18	18	1
Syria	0	0	0	0	0	0	0	203	203	7
Trinidad and Tobago	0	0	0	0	0	0	0	0	927	31
Turkey	0	0	0	0	0	0	0	362	362	12
United Kingdom	0	0	0	0	0	0	0	0	3,645	122
U.S.S.R.	0	0	0	0	0	0	0	1,467	1,467	49
Virgin Islands	0	0	0	0	0	0	0	555	555	19
Zaire	0	0	0	0	0	0	0	0	399	13
Total	0	25	434	3,602	0	49	1	15,900	110,832	3,694

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	**2,500**	**224**	**0**	**0**	**40**	**0**	**99**	**0**	**0**	**0**	**0**
Canada	2,500	224	0	0	40	0	99	0	0	0	0
Total	**2,500**	**224**	**0**	**0**	**40**	**0**	**99**	**0**	**0**	**0**	**0**
					PAD District V						
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**201**	**0**	**0**	**0**	**0**	**0**
Saudi Arabia	0	0	0	0	0	201	0	0	0	0	0
Other OPEC	**1,854**	**0**	**0**	**0**	**0**	**239**	**0**	**0**	**0**	**0**	**0**
Indonesia	1,854	0	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	239	0	0	0	0	0
Non OPEC	**3,671**	**148**	**55**	**0**	**293**	**88**	**193**	**0**	**207**	**0**	**207**
Australia	690	0	0	0	0	0	0	0	0	0	0
Brunei	215	0	0	0	0	0	0	0	0	0	0
Cameroon	341	0	0	0	0	0	0	0	0	0	0
Canada	439	148	55	0	144	0	193	0	0	0	0
China, People's Republic of	0	0	0	0	149	0	0	0	0	0	0
Malaysia	1,257	0	0	0	0	0	0	0	0	0	0
Mexico	3	0	0	0	0	88	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	0	207	0	207
Thailand	726	0	0	0	0	0	0	0	0	0	0
Total	**5,525**	**148**	**55**	**0**	**293**	**528**	**193**	**0**	**207**	**0**	**207**

See footnotes at end of table.

Table 29. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,[a] September 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**453**	**2,953**	**98**
Canada	0	0	0	0	0	0	90	453	2,953	98
Total	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**453**	**2,953**	**98**
					PAD District V					
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**201**	**201**	**7**
Saudi Arabia	0	0	0	0	0	0	0	201	201	7
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**239**	**2,093**	**70**
Indonesia	0	0	0	0	0	0	0	0	1,854	62
Venezuela	0	0	0	0	0	0	0	239	239	8
Non OPEC	**0**	**12**	**0**	**0**	**0**	**3**	**45**	**1,044**	**4,715**	**157**
Australia	0	0	0	0	0	0	0	0	690	23
Brunei	0	0	0	0	0	0	0	0	215	7
Cameroon	0	0	0	0	0	0	0	0	341	11
Canada	0	12	0	0	0	3	40	595	1,034	34
China, People's Republic of	0	0	0	0	0	0	0	149	149	5
Malaysia	0	0	0	0	0	0	0	0	1,257	42
Mexico	0	0	0	0	0	0	5	93	96	3
Singapore	0	0	0	0	0	0	0	207	207	7
Thailand	0	0	0	0	0	0	0	0	726	24
Total	**0**	**12**	**0**	**0**	**0**	**3**	**45**	**1,484**	**7,009**	**234**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-September 1990

(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**540,923**	**9,018**	**35,459**	**0**	**9,143**	**4,085**	**6,000**	**7,641**	**1,021**	**2,478**	**11,140**
Algeria	18,295	7,715	10,821	0	0	0	4,560	7,641	786	354	8,781
Iraq	185,859	0	1,432	0	0	0	188	0	0	0	0
Kuwait	28,942	171	614	0	0	35	260	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	303,234	1,132	20,842	0	9,143	4,050	992	0	235	1,449	1,684
United Arab Emirates	3,300	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	**478,081**	**1,189**	**8,100**	**2,291**	**21,486**	**9,928**	**32,276**	**5,618**	**1,624**	**18,234**	**25,476**
Ecuador	11,787	0	0	0	0	0	131	0	180	2,576	2,756
Gabon	18,754	0	0	0	0	0	0	0	0	105	105
Indonesia	30,785	0	883	0	0	0	0	2,892	0	0	2,892
Nigeria	237,652	0	0	0	184	0	0	1,828	1,371	44	3,243
Venezuela	179,103	1,189	7,217	2,291	21,302	9,928	32,145	898	73	15,509	16,480
Non OPEC	**671,697**	**40,310**	**62,096**	**16,920**	**67,984**	**16,300**	**42,271**	**18,359**	**32,776**	**57,737**	**108,872**
Angola	67,721	0	0	0	0	0	0	359	0	0	359
Argentina	2,316	0	1,123	881	1,057	0	1,263	465	2,206	0	2,671
Australia	13,423	1,644	0	0	0	0	0	81	145	0	226
Bahama Islands	0	0	0	0	0	0	208	567	4,460	7,160	12,187
Belgium	0	0	2,718	3,767	1,758	0	0	215	400	0	615
Benin	1,192	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	5,840	0	0	4,443	3,678	88	8,209
Brunei	2,463	0	0	0	0	0	0	0	0	0	0
Cameroon	4,604	0	0	0	0	0	0	0	941	329	1,270
Canada	173,166	27,109	3,895	249	14,517	2,909	14,578	431	1,597	6,483	8,511
China, People's Republic of	20,700	0	0	481	310	0	0	0	0	0	0
Colombia	36,647	0	481	0	0	0	183	327	1,709	9,796	11,832
Congo	7,626	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	6,890	0	2,189	0	0	0	0	0	172	0	172
France	0	40	501	276	6,118	296	777	0	1,802	531	2,333
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0	0
Greece	0	0	0	252	846	551	847	587	0	0	587
Guatemala	855	0	0	0	0	0	0	0	0	0	0
India	210	0	5,077	0	0	0	0	0	0	0	0
Italy	669	27	6,257	567	8,232	258	185	678	1,128	687	2,493
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	6	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	10,680	0	0	0	0	0	0	117	0	0	117
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	187,652	10,888	0	441	5	2,712	2,736	0	32	1,302	1,334
Netherlands	0	30	5,107	1,107	3,959	450	721	0	898	686	1,584
Netherlands Antilles	0	0	509	0	488	0	0	281	0	4,771	5,052
Norway	31,764	0	334	0	744	0	189	0	0	0	0
Oman	13,037	0	256	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	732	3,624	4,528
Portugal	0	16	0	42	1,139	0	0	0	954	0	954
Puerto Rico	0	0	1,703	2,387	0	0	0	0	199	0	199
Romania	0	0	0	3,447	866	187	625	0	0	0	0
Singapore	0	0	509	0	0	3	0	2,115	570	0	2,685
Spain	0	0	3,726	138	6,595	838	0	71	1,208	483	1,762
Sweden	0	0	381	0	0	0	0	0	460	0	460
Syria	218	0	412	0	0	0	0	0	0	974	974
Thailand	4,120	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	21,349	0	0	0	250	220	364	0	333	5,578	5,911
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	499	0	639	419	0	0	0	0	0	442	442
United Kingdom	50,939	550	1,833	468	2,768	56	954	0	1,704	194	1,898
U.S.S.R.	0	0	5,221	0	124	0	1,856	553	85	2,273	2,911
Virgin Islands	0	0	17,310	1,983	12,344	7,669	15,905	5,898	4,979	11,333	22,210
Yemen (Sana)	6,993	0	671	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	368	0	0	0	0
Zaire	5,964	0	0	0	0	0	0	0	0	0	0
Other	0	0	913	0	24	111	0	410	1,454	557	2,421
Total	**1,690,701**	**50,517**	**105,655**	**19,211**	**98,613**	**30,313**	**80,547**	**31,618**	**35,421**	**78,449**	**145,488**

See footnotes at end of table.

Table 30. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,[a] January-September 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**138**	**29**	**5,997**	**27,581**	**0**	**0**	**0**	**108,590**	**649,513**	**2,379**
Algeria	0	29	5,738	27,581	0	0	0	65,225	83,520	306
Iraq	0	0	0	0	0	0	0	1,620	187,479	687
Kuwait	0	0	0	0	0	0	0	1,080	30,022	110
Qatar	0	0	0	0	0	0	0	0	1,293	5
Saudi Arabia	138	0	259	0	0	0	0	38,240	341,474	1,251
United Arab Emirates	0	0	0	0	0	0	0	2,425	5,725	21
Other OPEC	**221**	**129**	**1,910**	**0**	**0**	**6,151**	**28**	**109,185**	**587,266**	**2,151**
Ecuador	0	0	0	0	0	0	0	2,887	14,674	54
Gabon	0	0	0	0	0	0	0	105	18,859	69
Indonesia	0	0	716	0	0	0	28	4,519	35,304	129
Nigeria	0	0	0	0	0	0	0	3,427	241,079	883
Venezuela	221	129	1,194	0	0	6,151	0	98,247	277,350	1,016
Non OPEC	**1,072**	**2,216**	**11,439**	**262**	**2,630**	**2,659**	**3,624**	**378,655**	**1,050,352**	**3,847**
Angola	0	0	0	0	0	0	0	359	68,080	249
Argentina	0	159	15	0	0	0	267	7,436	9,752	36
Australia	0	0	0	0	0	0	0	1,870	15,293	56
Bahama Islands	0	0	0	0	0	0	0	12,395	12,395	45
Belgium	0	0	0	0	0	0	2	8,860	8,860	32
Benin	0	0	0	0	0	0	0	0	1,192	4
Brazil	0	23	0	0	18	0	11	14,105	14,105	52
Brunei	0	0	0	0	0	0	0	0	2,463	9
Cameroon	0	0	0	0	0	0	0	1,270	5,874	22
Canada	206	1,168	827	0	538	1,281	1,669	77,457	250,623	918
China, People's Republic of	0	0	0	0	132	0	31	954	21,654	79
Colombia	0	0	0	0	0	0	5	12,501	49,148	180
Congo	0	0	0	0	0	0	0	982	8,608	32
Denmark	0	0	0	0	0	0	0	407	407	1
Egypt	0	0	705	0	0	0	9	3,075	9,965	37
France	0	0	375	0	0	0	0	10,716	10,716	39
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	66	283	283	1
Greece	0	0	235	0	0	0	0	3,318	3,318	12
Guatemala	0	0	0	0	0	0	0	0	855	3
India	0	0	3,627	0	0	0	0	8,704	8,914	33
Italy	0	8	21	262	0	0	14	18,324	18,993	70
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	82	0	31	0	63	186	186	1
Korea, Republic of	0	0	247	0	0	0	0	262	262	1
Malaysia	0	0	0	0	0	0	0	117	10,797	40
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	90	1,032	19,238	206,890	758
Netherlands	0	803	1,693	0	30	0	10	15,494	15,494	57
Netherlands Antilles	0	0	0	0	0	612	0	6,661	6,661	24
Norway	0	0	0	0	0	0	0	1,267	33,031	121
Oman	0	0	0	0	0	0	0	256	13,293	49
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,528	4,528	17
Portugal	0	28	0	0	22	0	0	2,201	2,201	8
Puerto Rico	0	0	1,941	0	1,847	0	429	8,506	8,506	31
Romania	0	0	0	0	0	0	0	5,125	5,125	19
Singapore	0	0	0	0	0	0	0	3,197	3,197	12
Spain	0	0	107	0	12	676	0	13,854	13,854	51
Sweden	0	0	277	0	0	0	0	1,118	1,118	4
Syria	0	0	0	0	0	0	0	1,386	1,604	6
Thailand	0	0	0	0	0	0	0	0	4,120	15
Trinidad and Tobago	0	22	0	0	0	0	0	6,767	28,116	103
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	1,500	1,999	7
United Kingdom	0	1	746	0	0	0	0	9,274	60,213	221
U.S.S.R.	160	0	321	0	0	0	0	10,593	10,593	39
Virgin Islands	706	0	220	0	0	0	0	78,347	78,347	287
Yemen (Sana)	0	0	0	0	0	0	0	671	7,664	28
Yugoslavia	0	0	0	0	0	0	0	368	368	1
Zaire	0	0	0	0	0	0	0	0	5,964	22
Other	0	0	0	0	0	0	16	3,485	3,485	13
Total	**1,431**	**2,374**	**19,346**	**27,843**	**2,630**	**8,810**	**3,652**	**596,430**	**2,287,131**	**8,378**

[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**63,933**	**4,738**	**2,872**	**0**	**7,518**	**2,288**	**5,797**	**6,751**	**432**	**973**	**8,156**
Algeria	419	4,028	2,872	0	0	0	4,560	6,751	432	112	7,295
Iraq	15,670	0	0	0	0	0	188	0	0	0	0
Kuwait	1,519	0	0	0	0	0	260	0	0	0	0
Saudi Arabia	46,325	710	0	0	7,518	2,288	789	0	0	861	861
Other OPEC	**172,157**	**0**	**238**	**0**	**19,928**	**7,537**	**32,069**	**2,368**	**1,624**	**17,907**	**21,899**
Ecuador	6,357	0	0	0	0	0	131	0	180	2,576	2,756
Gabon	11,567	0	0	0	0	0	0	0	0	105	105
Nigeria	120,020	0	0	0	184	0	0	1,828	1,371	44	3,243
Venezuela	34,213	0	238	0	19,744	7,537	31,938	540	73	15,182	15,795
Non OPEC	**107,633**	**4,421**	**26,292**	**15,816**	**59,914**	**11,733**	**38,817**	**15,605**	**30,046**	**55,649**	**101,300**
Angola	24,600	0	0	0	0	0	0	359	0	0	359
Argentina	387	0	723	849	838	0	1,263	196	2,206	0	2,402
Australia	811	0	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	208	567	4,460	6,879	11,906
Belgium	0	0	1,256	3,767	1,758	0	0	215	400	0	615
Benin	327	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	4,720	0	0	4,443	3,678	88	8,209
Brunei	568	0	0	0	0	0	0	0	0	0	0
Cameroon	1,678	0	0	0	0	0	0	0	941	329	1,270
Canada	16,996	4,235	851	152	11,602	2,349	11,353	250	921	6,194	7,365
China, People's Republic of	4,313	0	0	0	0	0	0	0	0	0	0
Colombia	2,947	0	0	0	0	0	183	327	1,466	9,796	11,589
Congo	882	0	0	0	0	0	0	410	572	0	982
Denmark	0	0	0	0	0	0	217	0	190	0	190
Egypt	6,319	0	724	0	0	0	0	0	172	0	172
France	0	0	334	276	5,618	296	777	0	1,802	531	2,333
Germany, DR (E)	0	0	0	0	0	0	295	0	0	265	265
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	252	846	379	847	587	0	0	587
India	0	0	498	0	0	0	0	0	0	0	0
Italy	669	0	2,412	449	7,783	258	185	678	592	687	1,957
Ivory Coast	0	0	110	0	0	0	0	0	168	0	168
Japan	0	0	0	0	0	0	0	0	0	0	0
Malaysia	843	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	40	0	0	0	0	0
Mexico	21,751	0	0	438	0	451	2,507	0	32	596	628
Netherlands	0	0	1,948	991	3,423	450	721	0	898	686	1,584
Netherlands Antilles	0	0	0	0	488	0	0	0	0	4,771	4,771
Norway	13,885	0	0	0	744	0	189	0	0	0	0
Panama	0	0	0	0	0	0	0	0	0	181	181
Peru	0	0	0	0	0	0	0	172	732	3,624	4,528
Portugal	0	0	0	16	897	0	0	0	954	0	954
Puerto Rico	0	0	1,703	2,387	0	0	0	0	199	0	199
Romania	0	0	0	3,447	866	187	625	0	0	0	0
Singapore	0	0	0	0	0	0	0	660	0	0	660
Spain	0	0	1,613	138	6,317	838	0	71	989	302	1,362
Sweden	0	0	0	0	0	0	0	0	460	0	460
Syria	0	0	0	0	0	0	0	0	0	974	974
Trinidad and Tobago	2,716	0	0	0	250	0	364	0	333	5,578	5,911
Tunisia	0	0	0	0	0	0	0	179	0	0	179
Turkey	0	0	201	236	0	0	0	0	0	80	80
United Kingdom	2,976	186	528	468	2,768	56	954	0	1,704	194	1,898
U.S.S.R.	0	0	0	0	124	0	1,856	183	85	2,273	2,541
Virgin Islands	0	0	13,213	1,950	10,872	6,318	15,905	5,898	4,732	11,333	21,963
Yemen (Sana)	998	0	0	0	0	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0	368	0	0	0	0
Zaire	3,967	0	0	0	0	0	0	0	0	0	0
Other	0	0	178	0	0	111	0	410	1,360	288	2,058
Total	**343,723**	**9,159**	**29,402**	**15,816**	**87,360**	**21,558**	**76,683**	**24,724**	**32,102**	**74,529**	**131,355**

See footnotes at end of table.

Table 31. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	138	0	0	0	0	0	0	31,507	95,440	350
Algeria	0	0	0	0	0	0	0	18,755	19,174	70
Iraq	0	0	0	0	0	0	0	188	15,858	58
Kuwait	0	0	0	0	0	0	0	260	1,779	7
Saudi Arabia	138	0	0	0	0	0	0	12,304	58,629	215
Other OPEC	221	0	0	0	0	5,940	0	87,832	259,989	952
Ecuador	0	0	0	0	0	0	0	2,887	9,244	34
Gabon	0	0	0	0	0	0	0	105	11,672	43
Nigeria	0	0	0	0	0	0	0	3,427	123,447	452
Venezuela	221	0	0	0	0	5,940	0	81,413	115,626	424
Non OPEC	630	128	2,262	0	2,240	2,398	1,499	267,450	375,083	1,374
Angola	0	0	0	0	0	0	0	359	24,959	91
Argentina	0	0	0	0	0	0	0	6,075	6,462	24
Australia	0	0	0	0	0	0	0	0	811	3
Bahama Islands	0	0	0	0	0	0	0	12,114	12,114	44
Belgium	0	0	0	0	0	0	0	7,396	7,396	27
Benin	0	0	0	0	0	0	0	0	327	1
Brazil	0	0	0	0	18	0	11	12,958	12,958	47
Brunei	0	0	0	0	0	0	0	0	568	2
Cameroon	0	0	0	0	0	0	0	1,270	2,948	11
Canada	206	88	150	0	311	1,144	121	39,927	56,923	209
China, People's Republic of	0	0	0	0	0	0	31	31	4,344	16
Colombia	0	0	0	0	0	0	0	11,772	14,719	54
Congo	0	0	0	0	0	0	0	982	1,864	7
Denmark	0	0	0	0	0	0	0	407	407	1
Egypt	0	0	227	0	0	0	5	1,128	7,447	27
France	0	0	18	0	0	0	0	9,652	9,652	35
Germany, DR (E)	0	0	0	0	0	0	0	560	560	2
Germany, FR (W)	0	0	0	0	0	0	45	45	45	(s)
Greece	0	0	0	0	0	0	0	2,911	2,911	11
India	0	0	0	0	0	0	0	498	498	2
Italy	0	8	0	0	0	0	14	13,066	13,735	50
Ivory Coast	0	0	0	0	0	0	0	278	278	1
Japan	0	4	14	0	0	0	10	28	28	(s)
Malaysia	0	0	0	0	0	0	0	0	843	3
Mauritania	0	0	0	0	0	0	0	40	40	(s)
Mexico	0	0	0	0	0	0	822	4,846	26,597	97
Netherlands	0	0	0	0	30	0	0	9,147	9,147	34
Netherlands Antilles	0	0	0	0	0	578	0	5,837	5,837	21
Norway	0	0	0	0	0	0	0	933	14,818	54
Panama	0	0	0	0	0	0	0	181	181	1
Peru	0	0	0	0	0	0	0	4,528	4,528	17
Portugal	0	28	0	0	22	0	0	1,917	1,917	7
Puerto Rico	0	0	1,673	0	1,847	0	429	8,238	8,238	30
Romania	0	0	0	0	0	0	0	5,125	5,125	19
Singapore	0	0	0	0	0	0	0	660	660	2
Spain	0	0	0	0	12	676	0	10,956	10,956	40
Sweden	0	0	0	0	0	0	0	460	460	2
Syria	0	0	0	0	0	0	0	974	974	4
Trinidad and Tobago	0	0	0	0	0	0	0	6,525	9,241	34
Tunisia	0	0	0	0	0	0	0	179	179	1
Turkey	0	0	0	0	0	0	0	517	517	2
United Kingdom	0	0	0	0	0	0	0	6,858	9,834	36
U.S.S.R.	160	0	0	0	0	0	0	4,681	4,681	17
Virgin Islands	264	0	180	0	0	0	0	70,665	70,665	259
Yemen (Sana)	0	0	0	0	0	0	0	0	998	4
Yugoslavia	0	0	0	0	0	0	0	368	368	1
Zaire	0	0	0	0	0	0	0	0	3,967	15
Other	0	0	0	0	0	0	11	2,358	2,358	9
Total	989	128	2,262	0	2,240	8,338	1,499	386,789	730,512	2,676

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	**64,624**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**
Algeria	3,644	0	0	0	0	0	0	0	0	0	0
Iraq	22,798	0	0	0	0	0	0	0	0	0	0
Kuwait	946	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	37,236	0	0	0	0	20	0	0	0	0	0
Other OPEC	**75,864**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ecuador	2,175	0	0	0	0	0	0	0	0	0	0
Indonesia	1,680	0	0	0	0	0	0	0	0	0	0
Nigeria	37,402	0	0	0	0	0	0	0	0	0	0
Venezuela	34,607	0	0	0	0	0	0	0	0	0	0
Non OPEC	**175,606**	**19,022**	**0**	**97**	**1,377**	**451**	**1,657**	**165**	**132**	**246**	**543**
Cameroon	425	0	0	0	0	0	0	0	0	0	0
Canada	130,700	19,022	0	97	1,377	441	1,657	165	132	246	543
Colombia	2,007	0	0	0	0	0	0	0	0	0	0
Egypt	571	0	0	0	0	0	0	0	0	0	0
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Mexico	22,830	0	0	0	0	10	0	0	0	0	0
Norway	1,462	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	6,258	0	0	0	0	0	0	0	0	0	0
Turkey	499	0	0	0	0	0	0	0	0	0	0
United Kingdom	6,705	0	0	0	0	0	0	0	0	0	0
Yemen (Sana)	4,005	0	0	0	0	0	0	0	0	0	0
Zaire	144	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**316,094**	**19,022**	**0**	**97**	**1,377**	**471**	**1,657**	**165**	**132**	**246**	**543**

See footnotes at end of table.

Table 32. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**64,644**	**237**
Algeria	0	0	0	0	0	0	0	0	3,644	13
Iraq	0	0	0	0	0	0	0	0	22,798	84
Kuwait	0	0	0	0	0	0	0	0	946	3
Saudi Arabia	0	0	0	0	0	0	0	20	37,256	136
Other OPEC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**75,864**	**278**
Ecuador	0	0	0	0	0	0	0	0	2,175	8
Indonesia	0	0	0	0	0	0	0	0	1,680	6
Nigeria	0	0	0	0	0	0	0	0	37,402	137
Venezuela	0	0	0	0	0	0	0	0	34,607	127
Non OPEC	**0**	**396**	**455**	**0**	**227**	**121**	**418**	**24,764**	**200,370**	**734**
Cameroon	0	0	0	0	0	0	0	0	425	2
Canada	0	396	437	0	227	121	398	24,716	155,416	569
Colombia	0	0	0	0	0	0	0	0	2,007	7
Egypt	0	0	0	0	0	0	0	0	571	2
Germany, FR (W)	0	0	0	0	0	0	18	18	18	(s)
Mexico	0	0	0	0	0	0	0	10	22,840	84
Norway	0	0	0	0	0	0	0	0	1,462	5
Trinidad and Tobago	0	0	0	0	0	0	0	0	6,258	23
Turkey	0	0	0	0	0	0	0	0	499	2
United Kingdom	0	0	18	0	0	0	0	18	6,723	25
Yemen (Sana)	0	0	0	0	0	0	0	0	4,005	15
Zaire	0	0	0	0	0	0	0	0	144	1
Other	0	0	0	0	0	0	2	2	2	(s)
Total	**0**	**396**	**455**	**0**	**227**	**121**	**418**	**24,784**	**340,878**	**1,249**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
Arab OPEC	407,272	4,280	32,587	0	0	1,202	203	890	589	1,505	2,984
Algeria	14,232	3,687	7,949	0	0	0	0	890	354	242	1,486
Iraq	145,942	0	1,432	0	0	0	0	0	0	0	0
Kuwait	25,954	171	614	0	0	0	0	0	0	0	0
Qatar	1,293	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	217,566	422	20,842	0	0	1,202	203	0	235	588	823
United Arab Emirates	2,285	0	1,750	0	0	0	0	0	0	675	675
Other OPEC	202,146	1,189	7,721	2,291	1,558	1,379	207	358	0	327	685
Ecuador	2,482	0	0	0	0	0	0	0	0	0	0
Gabon	7,187	0	0	0	0	0	0	0	0	0	0
Indonesia	3,777	0	742	0	0	0	0	0	0	0	0
Nigeria	80,230	0	0	0	0	0	0	0	0	0	0
Venezuela	108,470	1,189	6,979	2,291	1,558	1,379	207	358	0	327	685
Non OPEC	334,510	14,120	35,051	511	3,614	3,329	30	639	1,259	1,799	3,697
Angola	43,121	0	0	0	0	0	0	0	0	0	0
Argentina	1,929	0	216	32	0	0	0	269	0	0	269
Australia	1,301	1,644	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	0	0	281	281
Belgium	0	0	1,462	0	0	0	0	0	0	0	0
Benin	865	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	4	0	570	0	0	0	0	0	0
Cameroon	2,160	0	0	0	0	0	0	0	0	0	0
Canada	2,603	1,105	2,984	0	0	0	0	0	257	0	257
China, People's Republic of	13,066	0	0	0	0	0	0	0	0	0	0
Colombia	31,693	0	481	0	0	0	0	0	0	0	0
Congo	6,744	0	0	0	0	0	0	0	0	0	0
Egypt	0	0	1,465	0	0	0	0	0	0	0	0
France	0	40	167	0	500	0	0	0	0	0	0
Germany, FR (W)	0	0	217	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0	0
Guatemala	855	0	0	0	0	0	0	0	0	0	0
India	210	0	4,579	0	0	0	0	0	0	0	0
Italy	0	27	3,845	118	229	0	0	0	536	0	536
Japan	0	6	0	0	0	0	0	0	0	0	0
Malaysia	4,965	0	0	0	0	0	0	0	0	0	0
Mexico	138,865	10,888	0	3	5	1,978	30	0	0	706	706
Netherlands	0	30	3,159	116	536	0	0	0	0	0	0
Netherlands Antilles	0	0	509	0	0	0	0	0	0	0	0
Norway	16,417	0	334	0	0	0	0	0	0	0	0
Oman	12,537	0	256	0	0	0	0	0	0	0	0
Portugal	0	16	0	26	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	2,113	0	278	0	0	0	219	181	400
Sweden	0	0	381	0	0	0	0	0	0	0	0
Syria	218	0	412	0	0	0	0	0	0	0	0
Trinidad and Tobago	12,375	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	438	183	0	0	0	0	0	362	362
United Kingdom	40,743	364	1,305	0	0	0	0	0	0	0	0
U.S.S.R.	0	0	5,221	0	0	0	0	370	0	0	370
Virgin Islands	0	0	4,097	33	1,472	1,351	0	0	247	0	247
Yemen (Sana)	1,990	0	671	0	0	0	0	0	0	0	0
Zaire	1,853	0	0	0	0	0	0	0	0	0	0
Other	0	0	735	0	24	0	0	0	0	269	269
Total	943,928	19,589	75,359	2,802	5,172	5,910	440	1,887	1,848	3,631	7,366

See footnotes at end of table.

Table 33. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990 (Continued)
(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
Arab OPEC	**0**	**29**	**5,997**	**27,581**	**0**	**0**	**0**	**74,863**	**482,135**	**1,766**
Algeria	0	29	5,738	27,581	0	0	0	46,470	60,702	222
Iraq	0	0	0	0	0	0	0	1,432	147,374	540
Kuwait	0	0	0	0	0	0	0	785	26,739	98
Qatar	0	0	0	0	0	0	0	0	1,293	5
Saudi Arabia	0	0	259	0	0	0	0	23,751	241,317	884
United Arab Emirates	0	0	0	0	0	0	0	2,425	4,710	17
Other OPEC	**0**	**129**	**1,910**	**0**	**0**	**211**	**28**	**17,308**	**219,454**	**804**
Ecuador	0	0	0	0	0	0	0	0	2,482	9
Gabon	0	0	0	0	0	0	0	0	7,187	26
Indonesia	0	0	716	0	0	0	28	1,486	5,263	19
Nigeria	0	0	0	0	0	0	0	0	80,230	294
Venezuela	0	129	1,194	0	0	211	0	15,822	124,292	455
Non OPEC	**442**	**1,619**	**8,425**	**262**	**93**	**124**	**537**	**71,854**	**406,364**	**1,489**
Angola	0	0	0	0	0	0	0	0	43,121	158
Argentina	0	159	15	0	0	0	267	958	2,887	11
Australia	0	0	0	0	0	0	0	1,644	2,945	11
Bahama Islands	0	0	0	0	0	0	0	281	281	1
Belgium	0	0	0	0	0	0	2	1,464	1,464	5
Benin	0	0	0	0	0	0	0	0	865	3
Brazil	0	23	0	0	0	0	0	597	597	2
Cameroon	0	0	0	0	0	0	0	0	2,160	8
Canada	0	611	240	0	0	0	0	5,197	7,800	29
China, People's Republic of	0	0	0	0	93	0	0	93	13,159	48
Colombia	0	0	0	0	0	0	5	486	32,179	118
Congo	0	0	0	0	0	0	0	0	6,744	25
Egypt	0	0	478	0	0	0	4	1,947	1,947	7
France	0	0	357	0	0	0	0	1,064	1,064	4
Germany, FR (W)	0	0	0	0	0	0	2	219	219	1
Greece	0	0	235	0	0	0	0	235	235	1
Guatemala	0	0	0	0	0	0	0	0	855	3
India	0	0	3,627	0	0	0	0	8,206	8,416	31
Italy	0	0	21	262	0	0	0	5,038	5,038	18
Japan	0	0	18	0	0	0	53	77	77	(s)
Malaysia	0	0	0	0	0	0	0	0	4,965	18
Mexico	0	0	0	0	0	90	191	13,891	152,756	560
Netherlands	0	803	1,693	0	0	0	10	6,347	6,347	23
Netherlands Antilles	0	0	0	0	0	34	0	543	543	2
Norway	0	0	0	0	0	0	0	334	16,751	61
Oman	0	0	0	0	0	0	0	256	12,793	47
Portugal	0	0	0	0	0	0	0	42	42	(s)
Puerto Rico	0	0	268	0	0	0	0	268	268	1
Spain	0	0	107	0	0	0	0	2,898	2,898	11
Sweden	0	0	277	0	0	0	0	658	658	2
Syria	0	0	0	0	0	0	0	412	630	2
Trinidad and Tobago	0	22	0	0	0	0	0	22	12,397	45
Turkey	0	0	0	0	0	0	0	983	983	4
United Kingdom	0	1	728	0	0	0	0	2,398	43,141	158
U.S.S.R.	0	0	321	0	0	0	0	5,912	5,912	22
Virgin Islands	442	0	40	0	0	0	0	7,682	7,682	28
Yemen (Sana)	0	0	0	0	0	0	0	671	2,661	10
Zaire	0	0	0	0	0	0	0	0	1,853	7
Other	0	0	0	0	0	0	3	1,031	1,031	4
Total	**442**	**1,777**	**16,332**	**27,843**	**93**	**335**	**565**	**164,025**	**1,107,953**	**4,058**

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990
(Thousand Barrels)

Country of Origin	Crude Oil[b]	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil			
								Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
					PAD District IV						
Non OPEC	20,397	1,517	5	0	381	0	545	16	0	43	59
Canada	19,882	1,517	5	0	381	0	545	16	0	43	59
United Kingdom	515	0	0	0	0	0	0	0	0	0	0
Total	20,397	1,517	5	0	381	0	545	16	0	43	59
					PAD District V						
Arab OPEC	5,094	0	0	0	1,625	575	0	0	0	0	0
Iraq	1,449	0	0	0	0	0	0	0	0	0	0
Kuwait	523	0	0	0	0	35	0	0	0	0	0
Saudi Arabia	2,107	0	0	0	1,625	540	0	0	0	0	0
United Arab Emirates	1,015	0	0	0	0	0	0	0	0	0	0
Other OPEC	27,914	0	141	0	0	1,012	0	2,892	0	0	2,892
Ecuador	773	0	0	0	0	0	0	0	0	0	0
Indonesia	25,328	0	141	0	0	0	0	2,892	0	0	2,892
Venezuela	1,813	0	0	0	0	1,012	0	0	0	0	0
Non OPEC	33,551	1,230	748	496	2,698	787	1,222	1,934	1,339	0	3,273
Argentina	0	0	184	0	219	0	0	0	0	0	0
Australia	11,311	0	0	0	0	0	0	81	145	0	226
Brazil	0	0	0	0	550	0	0	0	0	0	0
Brunei	1,895	0	0	0	0	0	0	0	0	0	0
Cameroon	341	0	0	0	0	0	0	0	0	0	0
Canada	2,985	1,230	55	0	1,157	119	1,023	0	287	0	287
China, People's Republic of	3,321	0	0	481	310	0	0	0	0	0	0
Colombia	0	0	0	0	0	0	0	0	243	0	243
Germany, FR (W)	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	172	0	0	0	0	0
Italy	0	0	0	0	220	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	15	0	0	0	0	0	0	0
Malaysia	4,872	0	0	0	0	0	0	117	0	0	117
Mexico	4,206	0	0	0	0	273	199	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	281	0	0	281
Oman	500	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	242	0	0	0	0	0	0
Singapore	0	0	509	0	0	3	0	1,455	570	0	2,025
Thailand	4,120	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	220	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	94	0	94
Total	66,559	1,230	889	496	4,323	2,374	1,222	4,826	1,339	0	6,165

See footnotes at end of table.

Table 34. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,[a] January-September 1990 (Continued)

(Thousand Barrels)

Country of Origin	Kerosene	Special Naphthas	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products[c]	Total Products	Crude Oil and Products	
									Total	Daily Average
					PAD District IV					
Non OPEC	0	0	0	0	0	0	822	3,329	23,726	87
Canada	0	0	0	0	0	0	822	3,329	23,211	85
United Kingdom	0	0	0	0	0	0	0	0	515	2
Total	0	0	0	0	0	0	822	3,329	23,726	87
					PAD District V					
Arab OPEC	0	0	0	0	0	0	0	2,200	7,294	27
Iraq	0	0	0	0	0	0	0	0	1,449	5
Kuwait	0	0	0	0	0	0	0	35	558	2
Saudi Arabia	0	0	0	0	0	0	0	2,165	4,272	16
United Arab Emirates	0	0	0	0	0	0	0	0	1,015	4
Other OPEC	0	0	0	0	0	0	0	4,045	31,959	117
Ecuador	0	0	0	0	0	0	0	0	773	3
Indonesia	0	0	0	0	0	0	0	3,033	28,361	104
Venezuela	0	0	0	0	0	0	0	1,012	2,825	10
Non OPEC	0	73	297	0	70	16	348	11,258	44,809	164
Argentina	0	0	0	0	0	0	0	403	403	1
Australia	0	0	0	0	0	0	0	226	11,537	42
Brazil	0	0	0	0	0	0	0	550	550	2
Brunei	0	0	0	0	0	0	0	0	1,895	7
Cameroon	0	0	0	0	0	0	0	0	341	1
Canada	0	73	0	0	0	16	328	4,288	7,273	27
China, People's Republic of	0	0	0	0	39	0	0	830	4,151	15
Colombia	0	0	0	0	0	0	0	243	243	1
Germany, FR (W)	0	0	0	0	0	0	1	1	1	(s)
Greece	0	0	0	0	0	0	0	172	172	1
Italy	0	0	0	0	0	0	0	220	220	1
Japan	0	0	50	0	31	0	0	81	81	(s)
Korea, Republic of	0	0	247	0	0	0	0	262	262	1
Malaysia	0	0	0	0	0	0	0	117	4,989	18
Mexico	0	0	0	0	0	0	19	491	4,697	17
Netherlands Antilles	0	0	0	0	0	0	0	281	281	1
Oman	0	0	0	0	0	0	0	0	500	2
Portugal	0	0	0	0	0	0	0	242	242	1
Singapore	0	0	0	0	0	0	0	2,537	2,537	9
Thailand	0	0	0	0	0	0	0	0	4,120	15
Trinidad and Tobago	0	0	0	0	0	0	0	220	220	1
Other	0	0	0	0	0	0	0	94	94	(s)
Total	0	73	297	0	70	16	348	17,503	84,062	308

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[a] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[b] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
[c] Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, pentanes plus, petroleum coke, and waxes.
(s) = Less than 500 barrels or less than 500 barrels per day.
E = Estimated.
Note: Totals may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes.

Table 35. Exports of Crude Oil and Petroleum Products by PAD District, September 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	**0**	**409**	**0**	**0**	**1,642**	**2,051**	**68**
Natural Gas Liquids	**53**	**361**	**650**	**8**	**186**	**1,258**	**42**
Pentanes Plus	1	0	22	0	2	24	1
Liquefied Petroleum Gases	52	361	629	8	184	1,234	41
Ethane/Ethylene	3	0	0	0	(s)	3	(s)
Propane/Propylene	44	213	361	6	183	806	27
Normal Butane/Butylene	6	148	268	3	1	425	14
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	**1,641**	**420**	**13,395**	**23**	**6,619**	**22,098**	**737**
Finished Motor Gasoline	253	25	2,687	0	109	3,075	103
Naphtha-Type Jet Fuel	0	(s)	61	0	12	73	2
Kerosene-Type Jet Fuel	449	2	897	0	1	1,349	45
Kerosene	4	1	2	0	(s)	7	(s)
Distillate Fuel Oil	239	4	3,373	0	71	3,688	123
Residual Fuel Oil	252	1	1,508	0	4,233	5,993	200
Naphtha for Petrochemical Feedstock Use	3	0	85	0	7	95	3
Other Oils for Petrochemical Feedstock Use	0	0	514	0	141	655	22
Special Naphthas	8	7	213	0	(s)	228	8
Lubricants	185	41	306	3	99	635	21
Waxes	11	2	38	(s)	11	63	2
Petroleum Coke	224	279	3,689	19	1,919	6,130	204
Asphalt and Road Oil	2	57	5	(s)	11	76	3
Miscellaneous Products	9	(s)	16	(s)	4	29	1
Total	**1,694**	**1,189**	**14,046**	**31**	**8,447**	**25,406**	**847**

[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 36. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District, January-September 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil[a]	10	3,613	0	2	23,731	27,356	100
Natural Gas Liquids	843	2,725	4,716	21	2,416	10,722	39
Pentanes Plus	22	0	371	0	17	410	2
Liquefied Petroleum Gases	821	2,725	4,345	21	2,399	10,312	38
Ethane/Ethylene	17	(s)	0	0	3	20	(s)
Propane/Propylene	302	1,488	2,784	14	2,366	6,953	25
Normal Butane/Butylene	502	1,237	1,562	8	30	3,339	12
Isobutane	0	0	0	0	0	0	0
Finished Petroleum Products	9,536	4,570	85,834	137	75,814	175,891	644
Finished Motor Gasoline	472	472	11,854	1	987	13,787	51
Naphtha-Type Jet Fuel	(s)	(s)	320	0	1,018	1,338	5
Kerosene-Type Jet Fuel	522	87	3,690	(s)	1,631	5,931	22
Kerosene	56	25	41	0	38	160	1
Distillate Fuel Oil	483	374	13,448	1	4,578	18,884	69
Residual Fuel Oil	3,237	199	13,838	0	39,621	56,894	208
Naphtha for Petrochemical Feedstock Use	197	2	1,096	0	58	1,353	5
Other Oils for Petrochemical Feedstock Use	0	0	3,708	0	2,100	5,808	21
Special Naphthas	98	134	1,167	2	795	2,196	8
Lubricants	1,535	378	2,496	41	822	5,271	19
Waxes	71	35	254	1	133	494	2
Petroleum Coke	2,530	2,599	33,566	90	23,764	62,548	229
Asphalt and Road Oil	248	257	47	(s)	116	668	2
Miscellaneous Products	88	7	309	(s)	155	559	2
Total	10,390	10,908	90,551	160	101,961	213,970	784

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, September 1990
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	0	0	(s)
Australia	0	0	(s)	0	0	0	0	0	6
Bahama Islands	0	0	0	39	34	0	167	74	0
Bahrain	0	0	0	0	0	0	0	0	0
Belgium & Luxembourg	0	0	0	(s)	0	0	0	0	23
Brazil	0	0	0	0	18	0	0	0	0
Canada	409	0	394	349	15	5	211	531	1
Chile	0	0	0	0	0	0	195	0	0
China, People's Republic of	0	0	0	0	0	0	(s)	0	(s)
China, Taiwan	0	1	(s)	0	0	0	482	749	1
Colombia	0	0	1	0	0	0	0	0	2
Costa Rica	0	0	0	0	11	0	0	0	3
Denmark	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	55	0	0	0	0	(s)	0
Ecuador	0	0	0	0	0	0	0	1	0
Egypt	0	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	54	0	0
Finland	0	0	39	0	0	0	0	0	0
France	0	0	52	468	0	0	0	0	(s)
French Pacific Islands	0	0	0	0	0	0	0	32	0
Germany, FR (W)	0	0	0	1	0	0	(s)	1	(s)
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	183	5	(s)	143	0	1
Guinea	0	0	0	0	0	0	0	0	(s)
Honduras	0	0	0	0	0	0	(s)	(s)	0
Hong Kong	0	0	0	0	0	0	(s)	268	(s)
India	0	0	0	0	718	0	202	0	(s)
Indonesia	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	(s)	0	0
Israel	0	0	(s)	0	0	0	0	0	(s)
Italy	0	0	1	0	0	0	0	0	0
Jamaica	0	0	0	0	0	0	0	660	0
Japan	0	0	10	72	296	(s)	464	390	23
Korea, Republic of	0	2	1	0	0	0	318	1,348	3
Malaysia	0	0	(s)	0	0	0	0	80	0
Mexico	0	22	503	433	1	1	39	1,263	21
Netherlands	0	0	(s)	1,026	298	0	0	0	7
Netherlands Antilles	0	0	0	1	27	0	(s)	90	(s)
New Zealand	0	0	0	259	0	0	0	0	0
Nigeria	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	(s)	0	0
Panama	0	0	0	15	0	0	190	0	(s)
Peru	0	0	2	0	0	0	0	0	0
Philippines	0	0	(s)	0	0	0	(s)	0	(s)
Poland	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	391	0	11	0	0	0	2	(s)	(s)
Saudi Arabia	0	0	0	0	0	0	0	(s)	(s)
Singapore	0	0	1	0	0	0	501	405	2
South Africa	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	662	99	(s)
Suriname	0	0	16	0	0	0	0	0	0
Sweden	0	0	(s)	0	0	1	0	0	0
Switzerland	0	0	0	0	0	0	0	0	0
Thailand	0	0	63	0	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	1	0	0
United Kingdom	0	0	78	229	0	0	20	(s)	0
U.S.S.R.	0	0	0	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0	0	0	0
Venezuela	0	0	1	0	0	0	(s)	0	(s)
Virgin Islands	1,251	0	0	0	0	0	1	0	0
Yugoslavia	0	0	0	0	0	0	0	0	0
Other	0	0	4	0	0	0	33	(s)	(s)
Total	**2,051**	**24**	**1,234**	**3,075**	**1,423**	**7**	**3,688**	**5,993**	**95**

See footnotes at end of table.

Table 37. Exports of Crude Oil and Petroleum Products by Destination, September 1990 (Continued)
(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	0	0	5	(s)	0	0	(s)	6	(s)
Australia	0	0	7	(s)	75	0	(s)	88	3
Bahama Islands	0	0	3	0	0	0	(s)	317	11
Bahrain	0	(s)	0	0	0	0	0	(s)	(s)
Belgium & Luxembourg	0	(s)	15	(s)	320	1	(s)	359	12
Brazil	0	0	60	(s)	36	0	0	114	4
Canada	0	13	138	10	454	62	2	2,594	86
Chile	0	0	13	1	1	(s)	(s)	210	7
China, People's Republic of	0	0	0	(s)	0	0	(s)	1	(s)
China, Taiwan	0	0	31	(s)	1	(s)	2	1,267	42
Colombia	0	0	12	0	(s)	(s)	(s)	15	1
Costa Rica	0	2	9	(s)	0	0	(s)	25	1
Denmark	0	0	(s)	(s)	0	0	0	(s)	(s)
Dominican Republic	0	1	4	0	0	0	0	61	2
Ecuador	0	0	1	0	0	0	(s)	2	(s)
Egypt	0	0	(s)	0	0	0	(s)	(s)	(s)
El Salvador	0	(s)	2	0	0	0	0	57	2
Finland	0	0	(s)	0	0	0	1	40	1
France	286	0	1	1	373	1	(s)	1,182	39
French Pacific Islands	0	0	(s)	0	0	0	0	32	1
Germany, FR (W)	7	1	3	17	314	4	1	348	12
Ghana	0	0	(s)	0	44	0	0	44	1
Greece	0	(s)	1	0	81	0	(s)	82	3
Guatemala	0	2	6	(s)	0	0	1	341	11
Guinea	0	0	1	0	0	0	0	1	(s)
Honduras	0	(s)	9	(s)	0	0	0	10	(s)
Hong Kong	0	0	1	(s)	0	0	1	271	9
India	0	0	(s)	(s)	0	(s)	1	922	31
Indonesia	0	0	2	(s)	0	0	0	2	(s)
Ireland	0	0	1	(s)	0	0	0	1	(s)
Israel	0	0	(s)	0	0	0	0	1	(s)
Italy	0	0	(s)	(s)	1,270	(s)	(s)	1,272	42
Jamaica	0	0	(s)	(s)	0	0	(s)	660	22
Japan	0	0	26	5	1,437	2	6	2,731	91
Korea, Republic of	141	0	18	(s)	0	(s)	(s)	1,832	61
Malaysia	0	0	(s)	(s)	0	0	(s)	81	3
Mexico	1	1	97	19	56	1	3	2,460	82
Netherlands	51	0	2	(s)	329	(s)	5	1,719	57
Netherlands Antilles	0	0	3	0	0	0	0	121	4
New Zealand	0	0	1	(s)	0	(s)	0	260	9
Nigeria	0	0	(s)	0	0	(s)	0	(s)	(s)
Norway	0	0	(s)	0	63	0	0	63	2
Panama	0	0	3	0	0	0	(s)	208	7
Peru	0	0	47	0	0	0	(s)	49	2
Philippines	0	0	1	2	0	0	(s)	3	(s)
Poland	0	0	(s)	0	0	0	0	(s)	(s)
Portugal	0	0	(s)	(s)	0	0	0	(s)	(s)
Puerto Rico	0	207	20	1	0	0	1	634	21
Saudi Arabia	0	(s)	1	0	0	0	(s)	2	(s)
Singapore	0	(s)	4	(s)	0	1	(s)	916	31
South Africa	0	0	(s)	(s)	0	(s)	0	(s)	(s)
Spain	101	0	(s)	(s)	860	0	(s)	1,723	57
Suriname	0	0	0	0	0	0	0	16	1
Sweden	0	0	1	0	0	0	(s)	2	(s)
Switzerland	0	0	1	0	0	0	0	1	(s)
Thailand	0	0	3	(s)	0	0	(s)	66	2
Trinidad and Tobago	0	0	(s)	0	0	0	(s)	(s)	(s)
Turkey	0	0	(s)	0	136	0	0	136	5
United Arab Emirates	0	0	2	0	0	0	0	3	(s)
United Kingdom	68	0	26	1	141	1	4	568	19
U.S.S.R.	0	0	3	0	0	0	0	3	(s)
Uruguay	0	0	(s)	0	0	0	0	(s)	(s)
Venezuela	0	(s)	37	1	110	(s)	(s)	151	5
Virgin Islands	0	0	(s)	0	0	0	0	1,252	42
Yugoslavia	0	0	0	0	31	0	0	31	1
Other	0	(s)	10	(s)	0	(s)	1	49	2
Total	**655**	**228**	**635**	**63**	**6,130**	**76**	**29**	**25,406**	**847**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-September 1990
(Thousand Barrels)

Destination	Crude Oil[a]	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Naphtha for Petrochemical Feedstock Use
Argentina	0	0	(s)	0	0	0	0	0	6
Australia	0	0	3	36	0	3	716	1,579	46
Bahama Islands	0	0	43	506	359	0	2,121	4,221	(s)
Bahrain	0	0	0	0	0	0	3	0	(s)
Belgium & Luxembourg	0	126	83	1	0	2	3	1	173
Brazil	0	0	(s)	1	18	0	0	0	77
Cameroon	0	0	0	0	0	0	0	0	0
Canada	3,625	0	2,973	1,477	1,885	64	1,171	4,565	13
Chile	0	(s)	1	53	0	0	241	0	4
China, People's Republic of	0	0	0	0	0	0	2	1	3
China, Taiwan	300	1	58	0	0	9	486	6,817	24
Colombia	0	0	80	100	0	0	(s)	0	6
Costa Rica	0	0	1	474	84	0	901	0	15
Denmark	0	0	4	0	0	0	0	0	(s)
Dominican Republic	0	0	391	73	28	0	206	587	6
Ecuador	0	0	(s)	11	0	0	3	1	4
Egypt	0	0	(s)	0	0	0	0	1	(s)
El Salvador	0	0	31	307	43	0	261	0	2
Finland	0	0	76	0	0	(s)	0	0	0
France	0	0	170	468	0	0	(s)	0	19
French Pacific Islands	0	0	0	0	0	0	(s)	884	0
Germany, FR (W)	0	0	172	2	0	2	(s)	59	30
Ghana	0	0	0	0	0	0	0	0	0
Greece	0	0	2	3	0	0	1	30	(s)
Guatemala	0	0	59	1,344	125	11	1,678	1	3
Guinea	0	0	0	0	0	0	(s)	0	(s)
Honduras	0	0	23	35	0	16	51	(s)	11
Hong Kong	0	6	(s)	0	0	0	15	278	2
India	0	0	1	0	718	0	202	0	20
Indonesia	0	0	0	0	0	0	0	0	(s)
Ireland	0	0	0	0	0	1	(s)	0	0
Israel	0	0	7	242	560	1	40	213	1
Italy	0	0	48	0	0	2	(s)	681	20
Jamaica	0	8	107	143	165	1	572	4,852	3
Japan	0	8	23	286	2,385	4	2,028	5,178	216
Korea, Republic of	0	2	14	(s)	0	(s)	994	10,605	111
Malaysia	0	0	(s)	0	0	1	0	80	2
Mexico	0	236	5,054	5,721	1	36	313	10,817	55
Netherlands	0	0	33	1,304	523	(s)	3	(s)	197
Netherlands Antilles	0	0	0	140	27	0	1,045	867	(s)
New Zealand	0	0	(s)	259	0	0	0	0	1
Nigeria	0	0	0	0	0	0	0	0	(s)
Norway	0	0	2	(s)	0	1	(s)	0	(s)
Panama	0	0	44	69	47	0	1,173	1,970	9
Peru	0	2	62	0	290	0	100	321	(s)
Philippines	0	0	(s)	0	0	0	(s)	1	1
Poland	0	0	0	0	0	0	88	73	0
Portugal	0	0	0	0	0	0	0	0	0
Puerto Rico	1,672	18	146	216	0	3	91	109	158
Saudi Arabia	0	0	(s)	0	0	0	2	(s)	11
Singapore	0	0	3	0	0	0	1,361	1,156	8
South Africa	0	0	0	0	0	1	(s)	0	0
Spain	0	0	0	0	0	0	1,370	220	11
Suriname	0	0	116	0	0	0	0	0	(s)
Sweden	0	0	(s)	(s)	0	2	1	(s)	1
Switzerland	0	0	43	1	0	(s)	0	0	0
Thailand	0	0	64	34	0	(s)	0	0	16
Trinidad and Tobago	0	0	1	0	(s)	0	0	140	0
Turkey	0	0	32	0	0	0	(s)	0	0
United Arab Emirates	0	0	0	(s)	0	0	7	0	0
United Kingdom	0	2	85	233	0	0	24	119	1
U.S.S.R.	0	0	0	0	0	0	(s)	0	0
Uruguay	0	0	0	0	0	0	187	131	0
Venezuela	0	0	146	215	0	0	1,153	334	(s)
Virgin Islands	21,759	0	(s)	0	0	3	2	0	0
Yugoslavia	0	0	0	0	0	0	0	0	58
Other	0	1	110	30	11	0	267	1	9
Total	**27,356**	**410**	**10,312**	**13,787**	**7,269**	**160**	**18,884**	**56,894**	**1,353**

See footnotes at end of table.

Table 38. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January-September 1990 (Continued)

(Thousand Barrels)

Destination	Other Oils for Petrochemical Feedstock Use	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Miscellaneous Products	Crude Oil and Products	
								Total	Daily Average
Argentina	142	(s)	81	(s)	(s)	0	(s)	230	1
Australia	128	91	80	6	2,115	1	2	4,806	18
Bahama Islands	0	0	23	0	0	10	1	7,285	27
Bahrain	0	(s)	1	0	465	0	0	468	2
Belgium & Luxembourg	0	24	101	3	4,906	11	3	5,438	20
Brazil	0	0	111	4	273	(s)	(s)	485	2
Cameroon	0	0	(s)	0	75	0	0	76	(s)
Canada	0	307	1,145	81	3,984	489	23	21,800	80
Chile	0	(s)	87	3	4	(s)	3	396	1
China, People's Republic of	0	(s)	2	1	0	(s)	(s)	9	(s)
China, Taiwan	0	1	227	12	37	2	21	7,995	29
Colombia	0	(s)	65	1	2	(s)	2	256	1
Costa Rica	0	15	79	1	0	0	1	1,570	6
Denmark	0	2	1	1	394	1	(s)	402	1
Dominican Republic	0	2	46	1	0	6	1	1,348	5
Ecuador	0	(s)	25	1	0	(s)	1	48	(s)
Egypt	0	0	10	(s)	0	(s)	(s)	12	(s)
El Salvador	0	3	15	(s)	0	0	(s)	664	2
Finland	0	0	11	(s)	334	0	2	423	2
France	1,304	(s)	17	18	1,754	18	88	3,858	14
French Pacific Islands	0	(s)	1	0	0	0	(s)	886	3
Germany, FR (W)	77	2	43	68	896	33	5	1,390	5
Ghana	0	0	1	0	311	0	0	312	1
Greece	0	1	6	(s)	1,386	0	59	1,488	5
Guatemala	0	13	43	2	0	0	2	3,279	12
Guinea	0	0	6	0	0	0	(s)	7	(s)
Honduras	0	6	34	(s)	0	0	(s)	177	1
Hong Kong	0	1	14	5	0	0	4	324	1
India	0	(s)	37	3	(s)	1	5	988	4
Indonesia	0	1	16	1	200	1	23	241	1
Ireland	0	0	8	1	0	0	(s)	10	(s)
Israel	0	4	17	(s)	546	0	1	1,632	6
Italy	401	5	12	4	10,161	5	74	11,414	42
Jamaica	0	4	16	1	61	0	3	5,935	22
Japan	609	391	350	31	12,620	14	20	24,162	89
Korea, Republic of	1,199	194	105	5	605	2	64	13,899	51
Malaysia	209	(s)	6	7	17	0	2	323	1
Mexico	6	18	898	105	563	29	27	23,880	87
Netherlands	565	703	62	7	6,223	8	58	9,687	35
Netherlands Antilles	0	0	248	1	7	2	(s)	2,336	9
New Zealand	0	0	12	2	384	1	(s)	659	2
Nigeria	0	0	7	(s)	0	(s)	1	8	(s)
Norway	0	0	5	(s)	519	0	(s)	526	2
Panama	0	4	153	(s)	0	0	1	3,469	13
Peru	0	1	100	(s)	1	(s)	(s)	877	3
Philippines	119	0	32	4	(s)	(s)	1	160	1
Poland	0	0	1	0	0	0	0	162	1
Portugal	0	0	10	(s)	0	(s)	(s)	11	(s)
Puerto Rico	0	378	169	10	0	0	11	2,981	11
Saudi Arabia	0	1	27	(s)	(s)	0	7	50	(s)
Singapore	240	1	66	2	25	8	17	2,887	11
South Africa	0	(s)	1	(s)	486	2	(s)	491	2
Spain	466	(s)	31	51	7,039	3	1	9,192	34
Suriname	0	0	3	0	0	(s)	1	121	(s)
Sweden	0	1	10	1	295	(s)	1	311	1
Switzerland	0	0	5	(s)	8	1	(s)	57	(s)
Thailand	180	(s)	28	(s)	0	0	5	328	1
Trinidad and Tobago	0	(s)	1	(s)	2	(s)	1	146	1
Turkey	0	0	14	(s)	2,276	0	0	2,322	9
United Arab Emirates	0	(s)	8	(s)	239	(s)	(s)	255	1
United Kingdom	160	(s)	143	45	1,525	8	10	2,354	9
U.S.S.R.	0	6	218	0	279	0	0	504	2
Uruguay	0	0	9	(s)	0	0	(s)	327	1
Venezuela	0	2	47	3	528	3	2	2,432	9
Virgin Islands	0	9	1	(s)	0	0	(s)	21,775	80
Yugoslavia	0	0	(s)	(s)	668	2	0	729	3
Other	0	2	122	1	335	6	4	899	3
Total	**5,808**	**2,196**	**5,271**	**494**	**62,548**	**668**	**559**	**213,970**	**784**

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[a] Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) certain domestically produced crude oil destined for Canada; and (3) shipments to U.S. territories.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 39. Net Imports of Crude Oil and Petroleum Products into the United States by Country, September 1990
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,588**	**26**	**30**	**11**	**(s)**	**15**	**0**	**(s)**	**245**	**327**	**1,915**
Algeria	69	26	0	0	0	15	0	0	169	210	279
Iraq	318	0	0	0	0	0	0	0	0	0	318
Kuwait	33	0	0	0	0	0	0	0	0	0	33
Qatar	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Saudi Arabia	1,168	0	30	11	0	(s)	0	(s)	76	118	1,286
United Arab Emirates	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Other OPEC	**1,682**	**(s)**	**73**	**35**	**93**	**58**	**-4**	**-1**	**80**	**334**	**2,016**
Ecuador	37	0	0	0	0	6	0	(s)	(s)	6	42
Gabon	59	0	0	0	0	0	0	(s)	0	(s)	59
Indonesia	111	0	0	0	0	0	0	(s)	(s)	(s)	111
Iran	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Nigeria	743	0	0	0	0	12	0	(s)	(s)	12	755
Venezuela	732	(s)	73	35	93	40	-4	-1	80	317	1,049
Non OPEC	**2,318**	**80**	**48**	**-12**	**10**	**38**	**-199**	**-9**	**284**	**240**	**2,558**
Angola	123	0	0	0	0	12	0	(s)	0	12	135
Argentina	0	(s)	0	0	0	0	0	(s)	14	14	14
Australia	45	12	0	0	0	0	-3	(s)	(s)	9	54
Bahama Islands	0	0	-1	-1	-6	43	0	(s)	(s)	34	34
Belgium & Luxembourg	0	0	(s)	0	0	0	-11	(s)	18	6	6
Brazil	0	0	8	-1	0	0	-1	-2	(s)	5	5
Brunei	7	0	0	0	0	0	0	(s)	0	(s)	7
Cameroon	42	0	0	0	0	0	0	0	0	0	42
Canada	618	56	50	9	49	32	-14	-2	31	211	829
China, People's Republic of	42	0	5	0	(s)	0	0	0	(s)	5	47
China, Taiwan	0	(s)	0	0	-16	-25	(s)	-1	(s)	-42	-42
Colombia	84	(s)	0	0	0	13	(s)	(s)	(s)	12	96
Congo	29	0	0	0	0	0	0	0	0	0	29
Egypt	23	0	0	0	0	0	0	(s)	7	7	31
France	0	-2	-16	0	0	2	-12	(s)	1	-26	-26
Greece	0	0	0	0	0	0	-3	(s)	(s)	-3	-3
Guatemala	7	0	-6	(s)	-5	0	0	(s)	(s)	-11	-4
India	0	0	0	-24	-7	0	0	(s)	30	-1	-1
Italy	0	(s)	0	0	0	6	-42	(s)	32	-5	-5
Jamaica	0	0	0	0	0	-22	0	(s)	(s)	-22	-22
Japan	0	(s)	-2	-10	-15	-13	-48	-1	-1	-91	-91
Korea, Republic of	0	(s)	0	0	-11	-45	0	-1	-5	-61	-61
Malaysia	105	(s)	0	0	0	-3	0	(s)	(s)	-3	102
Mexico	807	22	-14	3	5	-42	-2	-3	13	-19	789
Netherlands	0	1	-34	-10	0	0	-11	(s)	17	-37	-37
Netherlands Antilles	0	0	8	-1	(s)	10	0	(s)	12	29	29
Norway	119	0	0	0	(s)	0	-2	(s)	0	-2	117
Oman	38	0	0	0	0	0	0	0	0	0	38
Panama	0	0	-1	0	-6	0	0	(s)	(s)	-7	-7
Peru	0	(s)	0	0	0	11	0	-2	(s)	9	9
Puerto Rico	-13	(s)	0	0	(s)	4	0	8	1	12	-1
Spain	0	0	16	0	-22	-3	-29	(s)	4	-34	-34
Sweden	0	(s)	0	0	0	0	0	(s)	1	1	1
Syria	0	0	0	0	0	0	0	0	7	7	7
Thailand	24	-2	0	0	0	0	0	(s)	(s)	-2	22
Trinidad and Tobago	70	0	0	0	7	13	0	(s)	(s)	19	89
Turkey	0	0	0	0	0	12	-5	(s)	0	8	8
United Kingdom	155	-3	-8	0	-1	(s)	-5	-1	-2	-19	136
U.S.S.R.	0	0	0	0	0	0	0	(s)	49	49	49
Virgin Islands	-42	0	51	23	64	50	0	(s)	51	240	198
Zaire	35	0	0	0	0	0	0	0	(s)	(s)	35
Other	0	-4	-9	(s)	-26	-17	-13	-2	6	-65	-65
Total	**5,588**	**106**	**151**	**34**	**103**	**111**	**-203**	**-10**	**610**	**901**	**6,489**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 40. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-September 1990
(Thousand Barrels per Day)

Country	Crude Oil[a]	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products[b]	Total Products	Total Crude Oil and Products
Arab OPEC	**1,981**	**33**	**33**	**15**	**22**	**41**	**-1**	**(s)**	**253**	**397**	**2,378**
Algeria	67	28	0	0	17	32	0	(s)	162	239	306
Iraq	681	0	0	0	1	0	0	(s)	5	6	687
Kuwait	106	1	0	(s)	1	0	0	(s)	2	4	110
Qatar	5	(s)	0	0	(s)	0	(s)	(s)	(s)	(s)	5
Saudi Arabia	1,111	4	33	15	4	6	(s)	(s)	78	140	1,251
United Arab Emirates	12	0	(s)	0	(s)	2	-1	(s)	6	8	20
Other OPEC	**1,751**	**4**	**78**	**36**	**114**	**92**	**-3**	**(s)**	**69**	**390**	**2,141**
Ecuador	43	(s)	(s)	0	(s)	10	0	(s)	(s)	10	54
Gabon	69	0	0	0	0	(s)	0	(s)	0	(s)	69
Indonesia	113	0	0	0	0	11	-1	(s)	6	16	128
Iran	0	0	0	0	0	0	(s)	(s)	0	(s)	(s)
Nigeria	871	0	1	0	0	12	0	(s)	(s)	13	883
Venezuela	656	4	77	36	114	59	-2	(s)	63	351	1,007
Non OPEC	**2,360**	**110**	**199**	**33**	**90**	**192**	**-223**	**-9**	**323**	**715**	**3,075**
Angola	248	0	0	0	0	1	0	(s)	(s)	1	249
Argentina	8	(s)	4	0	5	10	1	(s)	8	26	35
Australia	49	6	(s)	0	-3	-5	-8	(s)	-1	-11	38
Bahama Islands	0	(s)	-2	-1	-7	29	0	(s)	(s)	19	19
Belgium & Luxembourg	0	(s)	6	0	(s)	2	-18	(s)	23	13	13
Brazil	0	(s)	21	(s)	0	30	-1	(s)	(s)	50	50
Brunei	9	0	0	0	0	0	0	(s)	0	(s)	9
Cameroon	17	0	0	0	0	5	(s)	(s)	0	4	21
Canada	621	88	48	4	49	14	-13	-2	29	217	838
China, People's Republic of	76	0	1	0	(s)	(s)	0	(s)	2	3	79
China, Taiwan	-1	(s)	0	0	-2	-25	(s)	-1	(s)	-28	-29
Colombia	134	(s)	(s)	0	1	43	(s)	(s)	2	45	179
Congo	28	0	0	0	0	4	0	(s)	(s)	4	32
Egypt	25	(s)	0	0	0	1	0	(s)	11	11	36
France	0	(s)	21	1	3	9	-6	(s)	-1	25	25
Greece	0	(s)	3	2	3	2	-5	(s)	2	7	7
Guatemala	3	(s)	-5	(s)	-6	(s)	0	(s)	(s)	-12	-9
India	1	(s)	0	-3	-1	0	(s)	(s)	32	28	29
Italy	2	(s)	30	1	1	7	-37	(s)	24	25	28
Jamaica	0	(s)	-1	-1	-2	-17	(s)	(s)	(s)	-21	-21
Japan	0	(s)	-1	-9	-7	-19	-46	-1	-4	-88	-88
Korea, Republic of	0	(s)	(s)	0	-4	-39	-2	(s)	-5	-50	-50
Malaysia	39	(s)	0	0	0	(s)	(s)	(s)	-1	-1	38
Mexico	687	21	-21	10	9	-35	-2	-3	4	-17	670
Netherlands	0	(s)	10	(s)	3	6	-23	(s)	26	21	21
Netherlands Antilles	0	0	1	(s)	-4	15	(s)	-1	4	16	16
Norway	116	(s)	3	0	1	0	-2	(s)	1	3	119
Oman	48	0	0	0	0	0	0	(s)	1	1	49
Panama	0	(s)	(s)	(s)	-4	-7	0	-1	(s)	-12	-12
Peru	0	(s)	0	-1	(s)	15	(s)	(s)	(s)	13	13
Puerto Rico	-6	-1	-1	0	(s)	(s)	0	6	22	26	20
Romania	0	0	3	1	2	0	0	0	13	19	19
Spain	0	0	24	3	-5	6	-26	(s)	15	17	17
Sweden	0	(s)	(s)	0	(s)	2	-1	(s)	2	3	3
Syria	1	0	0	0	(s)	4	0	(s)	2	5	6
Thailand	15	(s)	(s)	0	0	0	0	(s)	-1	-1	14
Trinidad and Tobago	78	(s)	1	1	1	21	(s)	(s)	(s)	24	102
Turkey	2	(s)	0	0	(s)	2	-8	(s)	4	-3	-1
United Kingdom	187	2	9	(s)	3	7	-6	-1	10	25	212
U.S.S.R.	0	0	(s)	0	7	11	-1	-1	21	37	37
Virgin Islands	-80	(s)	45	28	58	81	0	(s)	74	287	207
Yemen (Sana)	26	0	0	0	0	0	0	(s)	2	2	28
Zaire	22	0	0	0	(s)	0	0	(s)	(s)	(s)	22
Other	4	-4	-1	-2	-10	12	-17	-2	4	-20	-16
Total	**6,093**	**147**	**311**	**84**	**226**	**325**	**-227**	**-10**	**645**	**1,501**	**7,594**

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[a] Includes crude oil imported for storage in the Strategic Petroleum Reserve.

[b] Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

(s) = Less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1990
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	15,991	72,311	763,335	10,749	70,269	932,655
Refinery	14,680	12,448	51,884	1,584	21,604	102,200
Tank Farms and Pipelines	1,290	58,542	105,937	8,201	30,736	204,706
Leases	21	1,321	15,903	964	1,221	19,430
Strategic Petroleum Reserve[a]	0	0	589,611	0	0	589,611
Alaskan In Transit	0	0	0	0	16,708	16,708
Total Stocks, All Oils (excluding Crude Oil)	196,174	176,339	282,243	15,126	98,721	768,603
Refinery	47,798	63,981	150,572	9,941	63,918	336,210
Bulk Terminal	121,130	74,097	80,783	2,736	29,135	307,881
Pipeline	26,967	36,415	42,093	2,253	5,517	113,245
Natural Gas Processing Plant	279	1,846	8,795	196	151	11,267
Pentanes Plus	133	2,244	5,104	143	129	7,753
Refinery	14	338	503	3	15	873
Bulk Terminal	66	1,010	1,986	0	25	3,087
Pipeline	0	711	1,021	77	73	1,882
Natural Gas Processing Plant	53	185	1,594	63	16	1,911
Liquefied Petroleum Gases	5,454	37,665	75,171	1,190	4,811	124,291
Refinery	1,654	3,923	11,348	536	1,319	18,780
Bulk Terminal	1,990	24,250	49,812	90	3,357	79,499
Pipeline	1,584	7,831	6,810	431	0	16,656
Natural Gas Processing Plant	226	1,661	7,201	133	135	9,356
Ethane/Ethylene	33	5,380	14,801	146	0	20,360
Refinery	31	1	851	0	0	883
Bulk Terminal	2	3,449	9,675	0	0	13,126
Pipeline	0	1,508	2,751	141	0	4,400
Natural Gas Processing Plant	0	422	1,524	5	0	1,951
Propane/Propylene	3,741	20,181	30,573	467	1,243	56,205
Refinery	1,011	2,094	3,837	145	85	7,172
Bulk Terminal	1,114	13,813	22,118	90	1,033	38,168
Pipeline	1,444	3,661	2,637	151	0	7,893
Natural Gas Processing Plant	172	613	1,981	81	125	2,972
Normal Butane/Butylene	1,587	8,979	22,198	431	3,164	36,359
Refinery	532	1,408	4,799	299	954	7,992
Bulk Terminal	867	5,311	14,373	0	2,204	22,755
Pipeline	140	1,817	936	92	0	2,985
Natural Gas Processing Plant	48	443	2,090	40	6	2,627
Isobutane	93	3,125	7,599	146	404	11,367
Refinery	80	420	1,861	92	280	2,733
Bulk Terminal	7	1,677	3,646	0	120	5,450
Pipeline	0	845	486	47	0	1,378
Natural Gas Processing Plant	6	183	1,606	7	4	1,806
Other Hydrocarbons/Alcohol	162	263	525	182	179	1,311
Refinery	162	263	525	182	179	1,311
Unfinished Oils	14,454	16,829	54,371	2,136	25,286	113,076
Refinery						
Naphthas and Lighter	3,549	4,288	14,067	607	4,114	26,625
Kerosene and Light Gas Oils	2,645	2,242	9,276	493	4,947	19,603
Heavy Gas Oils	7,425	6,268	20,962	716	12,131	47,502
Residuum	835	4,031	10,066	320	4,094	19,346
Motor Gasoline Blending Components	5,049	9,451	17,384	1,887	7,503	41,274
Refinery	4,997	8,631	16,157	1,812	7,471	39,068
Bulk Terminal	52	589	1,222	75	11	1,949
Pipeline	0	231	5	0	21	257

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1990 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Aviation Gasoline Blending Components	0	63	84	0	6	153
Refinery	0	63	84	0	6	153
Finished Motor Gasoline	59,307	51,809	48,751	4,373	24,457	188,697
Refinery	8,344	11,099	19,429	1,716	8,911	49,499
Bulk Terminal	36,817	24,893	10,222	1,607	13,049	86,588
Pipeline	14,146	15,817	19,100	1,050	2,497	52,610
Finished Leaded Motor Gasoline	136	3,325	936	1,533	5,473	11,403
Refinery	12	739	412	654	1,927	3,744
Bulk Terminal	124	1,310	273	490	3,181	5,378
Pipeline	0	1,276	251	389	365	2,281
Finished Unleaded Motor Gasoline	59,171	48,484	47,815	2,840	18,984	177,294
Refinery	8,332	10,360	19,017	1,062	6,984	45,755
Bulk Terminal	36,693	23,583	9,949	1,117	9,868	81,210
Pipeline	14,146	14,541	18,849	661	2,132	50,329
Finished Aviation Gasoline	219	541	528	49	457	1,794
Refinery	16	175	471	34	181	877
Bulk Terminal	203	325	56	15	276	875
Pipeline	0	41	1	0	0	42
Naphtha-Type Jet Fuel	710	982	2,363	399	1,634	6,088
Refinery	203	412	1,647	274	577	3,113
Bulk Terminal	444	256	180	0	658	1,538
Pipeline	63	314	536	125	399	1,437
Kerosene-Type Jet Fuel	11,937	9,448	14,133	742	7,623	43,883
Refinery	1,958	2,083	6,802	310	3,816	14,969
Bulk Terminal	5,957	3,914	1,707	226	2,688	14,492
Pipeline	4,022	3,451	5,624	206	1,119	14,422
Kerosene	2,847	1,723	1,743	45	80	6,438
Refinery	227	924	947	27	51	2,176
Bulk Terminal	2,307	662	518	18	24	3,529
Pipeline	313	137	278	0	5	733
Distillate Fuel Oil	62,967	30,030	29,416	2,459	11,625	136,497
Refinery	9,288	9,091	15,239	1,433	5,431	40,482
Bulk Terminal	46,840	13,070	5,480	662	4,987	71,039
Pipeline	6,839	7,869	8,697	364	1,207	24,976
Residual Fuel Oil[b]	22,344	4,056	14,628	474	8,032	49,534
Refinery	2,569	2,794	6,906	474	5,350	18,093
Bulk Terminal	19,775	1,262	7,722	0	2,512	31,271
Pipeline	0	0	0	0	170	170
Less than 0.31% Sulfur	5,707	270	1,404	31	649	8,061
Refinery	890	26	1,366	31	587	2,900
Bulk Terminal	4,817	244	38	0	62	5,161
0.31 to 1.00% Sulfur	8,203	900	4,006	254	943	14,306
Refinery	668	454	1,217	254	625	3,218
Bulk Terminal	7,535	446	2,789	0	318	11,088
Greater than 1.00% Sulfur	8,434	2,886	9,218	189	6,270	26,997
Refinery	1,011	2,314	4,323	189	4,138	11,975
Bulk Terminal	7,423	572	4,895	0	2,132	15,022
Naphtha for Petrochemical Feedstock Use	163	251	921	0	94	1,429
Refinery	163	251	921	0	94	1,429

See footnotes at end of table.

Table 41. Stocks of Crude Oil and Petroleum Products by PAD District, September 1990 (Continued)
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Other Oils for Petrochemical Feedstock Use	3	81	1,799	2	149	2,034
Refinery	3	81	1,799	2	149	2,034
Special Naphthas	602	536	1,394	6	137	2,675
Refinery	129	246	1,318	6	94	1,793
Bulk Terminal	473	290	76	0	43	882
Lubricants	2,662	1,561	5,525	39	1,943	11,730
Refinery	637	644	4,942	33	1,001	7,257
Bulk Terminal	2,025	917	583	6	942	4,473
Waxes	59	137	456	185	137	974
Refinery	59	137	456	185	137	974
Petroleum Coke	591	1,582	3,143	53	1,883	7,252
Refinery	591	1,582	3,143	53	1,883	7,252
Asphalt and Road Oil	5,712	6,854	3,501	743	2,368	19,178
Refinery	2,107	4,222	2,736	706	1,869	11,640
Bulk Terminal	3,605	2,632	765	37	499	7,538
Miscellaneous Products	799	233	1,303	19	188	2,542
Refinery	223	193	828	19	98	1,361
Bulk Terminal	576	27	454	0	64	1,121
Pipeline	0	13	21	0	26	60
Total Stocks, All Oils	212,165	248,650	1,045,578	25,875	168,990	1,701,258

[a] Includes 38,395 thousand barrels of domestic crude oil.

[b] Sulfur content not available for stocks held by pipelines.

Note: Stocks are reported as of the last day of the month.

Sources: See Explanatory Notes.

Table 42. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State, September 1990

(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel	Propane/ Propylene
PAD District I	**136**	**45,025**	**2,534**	**56,128**	**22,344**	**2,297**
Connecticut	0	1,579	180	3,631	272	W
Delaware, D.C., Maryland	29	2,139	89	5,650	3,021	W
Florida	0	7,147	141	2,112	903	208
Georgia	3	3,319	80	1,120	80	W
Maine, New Hampshire, Vermont	0	1,317	398	2,785	654	W
Massachusetts	0	1,582	107	2,878	1,434	W
New Jersey	1	8,706	44	15,350	8,282	W
New York	31	4,303	429	10,235	5,212	W
North Carolina	36	3,143	219	1,705	296	W
Pennsylvania	3	5,524	494	5,481	834	W
Rhode Island	0	752	W	1,431	W	W
South Carolina	3	1,884	113	976	W	W
Virginia	18	3,421	164	2,659	620	W
West Virginia	12	209	W	115	W	W
PAD District II	**2,049**	**33,943**	**1,586**	**22,161**	**4,056**	**16,520**
Illinois	203	7,094	328	4,174	1,764	1,434
Indiana	285	3,730	79	2,859	542	W
Iowa	120	1,177	W	1,048	W	W
Kansas, Nebraska	508	2,631	33	1,896	64	9,549
Kentucky	11	1,518	117	687	W	W
Michigan	121	3,725	134	2,024	200	2,161
Minnesota	227	1,693	W	1,681	239	W
Missouri	204	1,179	W	746	W	W
North Dakota, South Dakota	58	677	W	761	W	W
Ohio	11	4,343	471	2,088	370	W
Oklahoma	274	1,788	W	1,397	238	1,015
Tennessee	0	2,349	63	903	196	W
Wisconsin	27	2,039	W	1,897	132	W
PAD District III	**685**	**28,966**	**1,465**	**20,719**	**14,628**	**27,936**
Alabama	0	1,854	77	950	424	102
Arkansas	31	485	W	332	W	W
Louisiana	17	5,399	528	4,301	5,716	2,920
Mississippi	36	2,276	11	1,826	W	3,399
New Mexico	119	437	W	234	28	W
Texas	482	18,515	845	13,076	8,253	21,403
PAD District IV	**1,144**	**2,179**	**45**	**2,095**	**474**	**316**
Colorado	178	630	W	401	W	W
Idaho	132	269	W	150	W	W
Montana	412	530	W	689	60	17
Utah	194	242	W	248	98	198
Wyoming	228	508	W	607	W	47
PAD District V	**5,108**	**16,852**	**75**	**10,418**	**7,862**	**1,243**
Alaska	146	501	W	1,021	W	W
Arizona	296	639	W	243	W	W
California	2,886	11,818	52	5,994	4,758	219
Hawaii	32	621	W	506	W	W
Nevada	90	265	W	126	W	W
Oregon	531	1,017	W	768	205	W
Washington	1,127	1,991	W	1,760	1,081	14
U.S. Total	**9,122**	**126,965**	**5,705**	**111,521**	**49,364**	**48,312**

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes.

Table 43. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, September 1990
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	**0**	**0**	**0**	**78**	**2,220**	**478**	**0**	**563**	**51,919**
Petroleum Products	**7,400**	**286**	**0**	**4,207**	**6,006**	**1,642**	**0**	**78,716**	**23,644**
Pentanes Plus	0	0	0	0	212	0	0	0	555
Liquefied Petroleum Gases	0	8	0	961	2,647	65	0	1,928	4,686
Unfinished Oils	0	0	0	0	0	0	0	150	139
Motor Gasoline Blending Components	0	55	0	0	45	0	0	771	68
Finished Motor Gasoline	5,026	0	0	1,950	1,518	753	0	47,183	9,786
Leaded	0	0	0	0	2	41	0	0	79
Unleaded	5,026	0	0	1,950	1,516	712	0	47,183	9,707
Finished Aviation Gasoline	16	0	0	0	0	8	0	79	57
Jet Fuel	261	0	0	249	168	559	0	10,910	3,362
Naphtha-Type	0	0	0	0	84	0	0	389	65
Kerosene-Type	261	0	0	249	84	559	0	10,521	3,297
Kerosene	23	0	0	50	0	0	0	195	0
Distillate Fuel Oil	2,019	0	0	677	569	257	0	15,627	3,947
Residual Fuel Oil	0	0	0	22	818	0	0	1,006	0
Petrochemical Feedstocks[a]	55	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	193	93
Lubricants	0	136	0	126	19	0	0	326	428
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	57	0	172	0	0	0	310	523
Miscellaneous Products	0	30	0	0	10	0	0	38	0
Total	**7,400**	**286**	**0**	**4,285**	**8,226**	**2,120**	**0**	**79,279**	**75,563**

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	**0**	**0**	**2,874**	**1,366**	**0**	**0**	**0**	**8,108**	**0**
Petroleum Products	**0**	**2,078**	**1,468**	**1,121**	**1,236**	**0**	**0**	**65**	**0**
Pentanes Plus	0	0	123	142	0	0	0	0	0
Liquefied Petroleum Gases	0	0	550	979	0	0	0	0	0
Unfinished Oils	0	106	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,261	445	0	754	0	0	0	0
Leaded	0	150	73	0	322	0	0	0	0
Unleaded	0	1,111	372	0	432	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	0	485	77	0	203	0	0	0	0
Naphtha-Type	0	280	73	0	128	0	0	0	0
Kerosene-Type	0	205	4	0	75	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	226	273	0	279	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	65	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	**0**	**2,078**	**4,342**	**2,487**	**1,236**	**0**	**0**	**8,173**	**0**

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: See Explanatory Notes.

Table 44. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, September 1990
(Thousand Barrels)

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	0	0	2,220	478	0	51,919
Petroleum Products	7,331	0	2,344	5,124	1,642	64,547	19,403
Pentanes Plus	0	0	0	212	0	0	555
Liquefied Petroleum Gases	0	0	961	2,647	65	1,762	4,661
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	5,026	0	954	1,518	753	39,719	8,138
Leaded	0	0	0	2	41	0	79
Unleaded	5,026	0	954	1,516	712	39,719	8,059
Finished Aviation Gasoline	16	0	0	0	8	54	33
Jet Fuel	261	0	149	168	559	8,938	3,108
Naphtha-Type	0	0	0	84	0	156	65
Kerosene-Type	261	0	149	84	559	8,782	3,043
Kerosene	23	0	10	0	0	180	0
Distillate Fuel Oil	2,005	0	270	569	257	13,894	2,908
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	10	0	0	0
Total	7,331	0	2,344	7,344	2,120	64,547	71,322

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	2,874	1,366	0	3,671	0
Petroleum Products	0	1,737	1,468	1,121	1,236	0	0
Pentanes Plus	0	0	123	142	0	0	0
Liquefied Petroleum Gases	0	0	550	979	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	0	1,026	445	0	754	0	0
Leaded	0	150	73	0	322	0	0
Unleaded	0	876	372	0	432	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	0	485	77	0	203	0	0
Naphtha-Type	0	280	73	0	128	0	0
Kerosene-Type	0	205	4	0	75	0	0
Kerosene	0	0	0	0	0	0	0
Distillate Fuel Oil	0	226	273	0	279	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	0	1,737	4,342	2,487	1,236	3,671	0

Sources: See Explanatory Notes.

Table 45. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, September 1990
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	0	0	0	78	0	0	563	0
Petroleum Products	69	286	0	1,863	882	0	14,169	33
Liquefied Petroleum Gases	0	8	0	0	0	0	166	0
Unfinished Oils	0	0	0	0	0	0	150	0
Motor Gasoline Blending Components	0	55	0	0	45	0	771	0
Finished Motor Gasoline	0	0	0	996	0	0	7,464	0
Leaded	0	0	0	0	0	0	0	0
Unleaded	0	0	0	996	0	0	7,464	0
Finished Aviation Gasoline	0	0	0	0	0	0	25	0
Jet Fuel	0	0	0	100	0	0	1,972	0
Naphtha-Type	0	0	0	0	0	0	233	0
Kerosene-Type	0	0	0	100	0	0	1,739	0
Kerosene	0	0	0	40	0	0	15	0
Distillate Fuel Oil	14	0	0	407	0	0	1,733	0
Residual Fuel Oil	0	0	0	22	818	0	1,006	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	22	818	0	1,006	0
Petrochemical Feedstocks[a]	55	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	193	33
Lubricants	0	136	0	126	19	0	326	0
Waxes	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	57	0	172	0	0	310	0
Miscellaneous Products	0	30	0	0	0	0	38	0
Total	69	286	0	1,941	882	0	14,732	33

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	563	0	0	0	0	0	4,437
Petroleum Products	1,180	12,956	4,241	341	0	0	65
Liquefied Petroleum Gases	0	166	25	0	0	0	0
Unfinished Oils	43	107	139	106	0	0	0
Motor Gasoline Blending Components	94	677	68	0	0	0	0
Finished Motor Gasoline	0	7,464	1,648	235	0	0	0
Leaded	0	0	0	0	0	0	0
Unleaded	0	7,464	1,648	235	0	0	0
Finished Aviation Gasoline	0	25	24	0	0	0	0
Jet Fuel	301	1,671	254	0	0	0	0
Naphtha-Type	183	50	0	0	0	0	0
Kerosene-Type	118	1,621	254	0	0	0	0
Kerosene	0	15	0	0	0	0	0
Distillate Fuel Oil	238	1,495	1,039	0	0	0	0
Residual Fuel Oil	176	830	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	176	830	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0
Special Naphthas	96	64	93	0	0	0	0
Lubricants	194	132	428	0	0	0	65
Waxes	0	0	0	0	0	0	0
Asphalt and Road Oil	0	310	523	0	0	0	0
Miscellaneous Products	38	0	0	0	0	0	0
Total	1,743	12,956	4,241	341	0	0	4,502

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Table 46. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, September 1990
(Thousand Barrels)

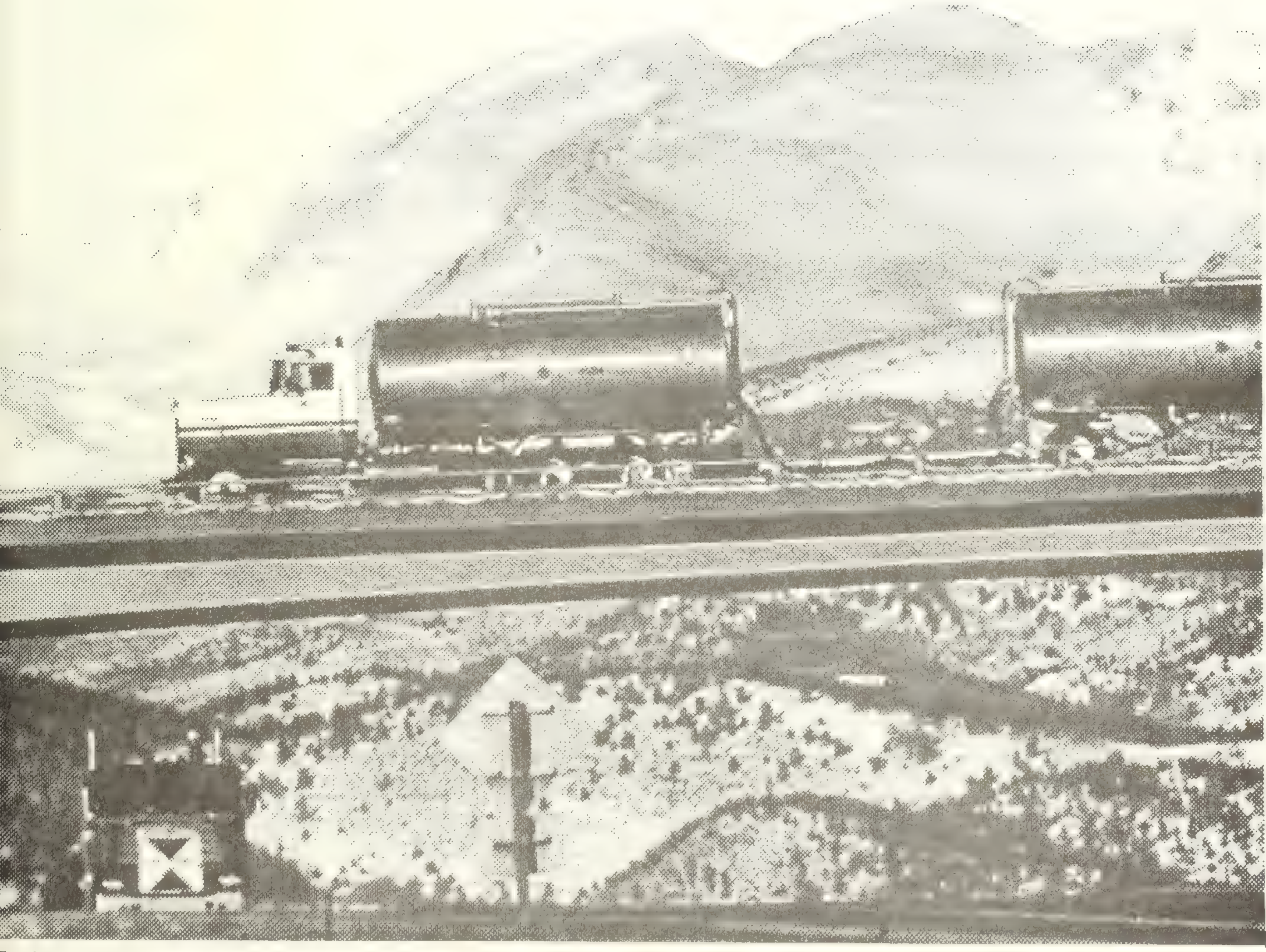
Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	641	0	641	54,793	2,776	52,017
Petroleum Products	82,923	7,686	75,237	32,512	11,855	20,657
Pentanes Plus	0	0	0	678	212	466
Liquefied Petroleum Gases	2,889	8	2,881	5,236	3,673	1,563
Ethane/Ethylene	0	0	0	285	1,274	-989
Propane/Propylene	2,733	8	2,725	3,238	1,675	1,563
Normal Butane/Butylene	103	0	103	568	565	3
Isobutane	53	0	53	1,145	159	986
Unfinished Oils	150	0	150	139	0	139
Motor Gasoline Blending Components	771	55	716	68	45	23
Finished Motor Gasoline	49,133	5,026	44,107	15,257	4,221	11,036
Leaded	0	0	0	152	43	109
Unleaded	49,133	5,026	44,107	15,105	4,178	10,927
Finished Aviation Gasoline	79	16	63	73	8	65
Jet Fuel	11,159	261	10,898	3,700	976	2,724
Naphtha-Type	389	0	389	138	84	54
Kerosene-Type	10,770	261	10,509	3,562	892	2,670
Kerosene	245	23	222	23	50	-27
Distillate Fuel Oil	16,304	2,019	14,285	6,239	1,503	4,736
Residual Fuel Oil	1,028	0	1,028	0	840	-840
Petrochemical Feedstocks[a]	0	55	-55	55	0	55
Special Naphthas	193	0	193	93	0	93
Lubricants	452	136	316	428	145	283
Waxes	0	0	0	0	0	0
Asphalt and Road Oil	482	57	425	523	172	351
Miscellaneous Products	38	30	8	0	10	-10
Total	83,564	7,686	75,878	87,305	14,631	72,674

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	11,694	52,482	-40,788	478	4,240	-3,762	0	8,108	-8,108
Petroleum Products	7,478	104,438	-96,960	1,642	3,825	-2,183	3,314	65	3,249
Pentanes Plus	354	555	-201	0	265	-265	0	0	0
Liquefied Petroleum Gases	3,634	6,614	-2,980	65	1,529	-1,464	0	0	0
Ethane/Ethylene	1,748	132	1,616	0	627	-627	0	0	0
Propane/Propylene	1,108	4,979	-3,871	64	481	-417	0	0	0
Normal Butane/Butylene	585	424	161	1	268	-267	0	0	0
Isobutane	193	1,079	-886	0	153	-153	0	0	0
Unfinished Oils	0	395	-395	0	0	0	106	0	106
Motor Gasoline Blending Components	100	839	-739	0	0	0	0	0	0
Finished Motor Gasoline	1,518	58,230	-56,712	753	1,199	-446	2,015	0	2,015
Leaded	2	229	-227	41	395	-354	472	0	472
Unleaded	1,516	58,001	-56,485	712	804	-92	1,543	0	1,543
Finished Aviation Gasoline	0	136	-136	8	0	8	0	0	0
Jet Fuel	168	14,757	-14,589	559	280	279	688	0	688
Naphtha-Type	84	734	-650	0	201	-201	408	0	408
Kerosene-Type	84	14,023	-13,939	559	79	480	280	0	280
Kerosene	0	195	-195	0	0	0	0	0	0
Distillate Fuel Oil	569	19,800	-19,231	257	552	-295	505	0	505
Residual Fuel Oil	818	1,006	-188	0	0	0	0	0	0
Petrochemical Feedstocks[a]	0	0	0	0	0	0	0	0	0
Special Naphthas	0	286	-286	0	0	0	0	0	0
Lubricants	220	754	-534	0	0	0	0	65	-65
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	57	833	-776	0	0	0	0	0	0
Miscellaneous Products	40	38	2	0	0	0	0	0	0
Total	19,172	156,920	-137,748	2,120	8,065	-5,945	3,314	8,173	-4,859

[a] Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.
Sources: See Explanatory Notes.

Appendix A

District Descriptions and Maps



Tank trucks are used to pick up crude oil gathered at leases in remote areas.

Appendix A

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung, and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pensylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana-Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

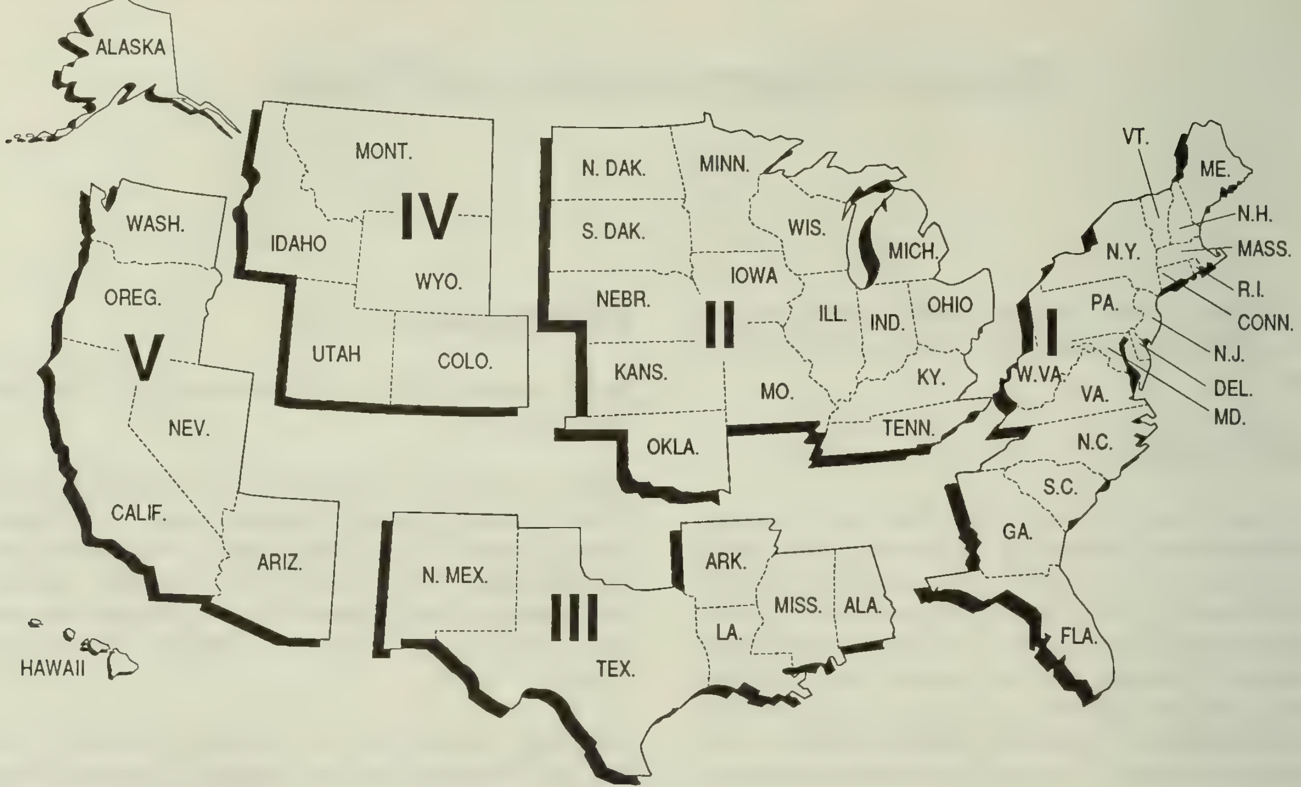
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

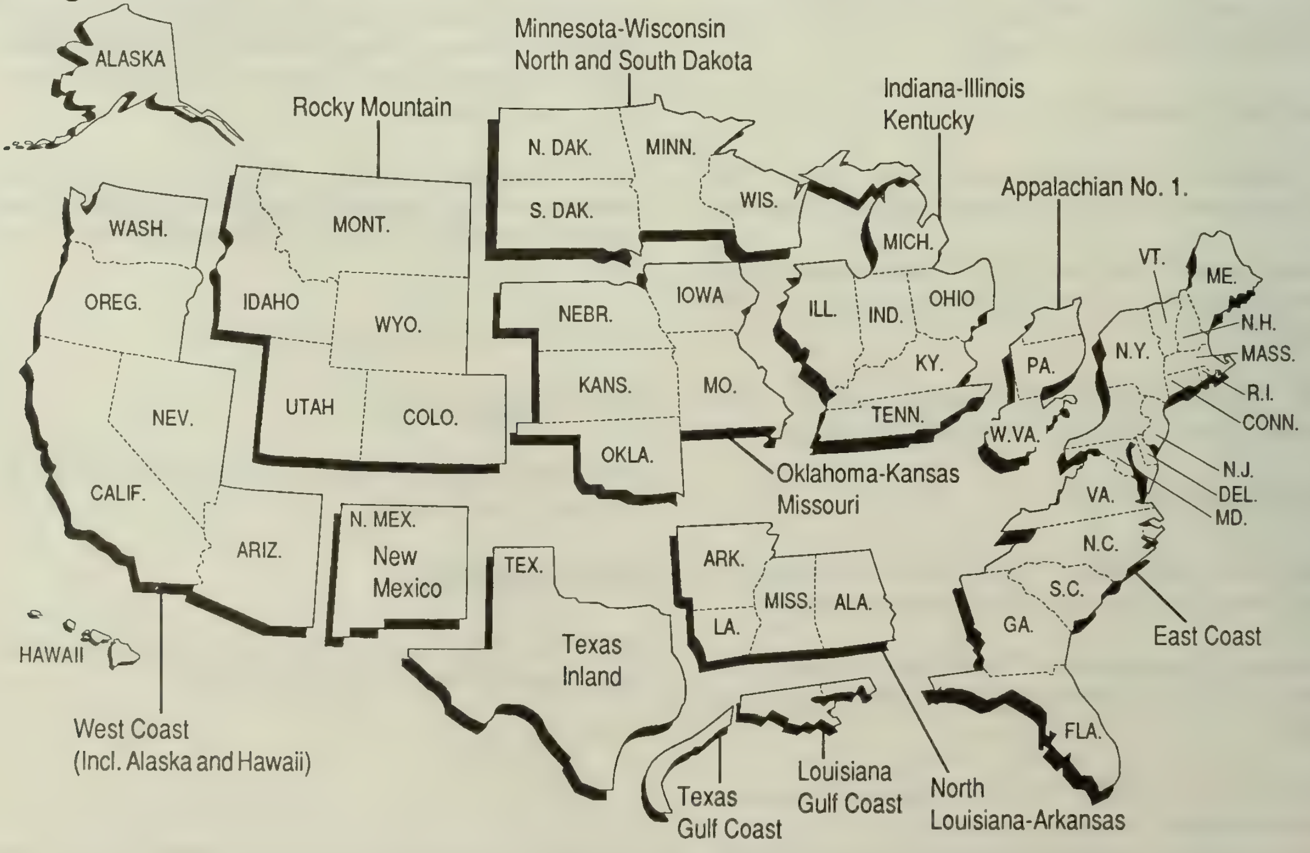
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts

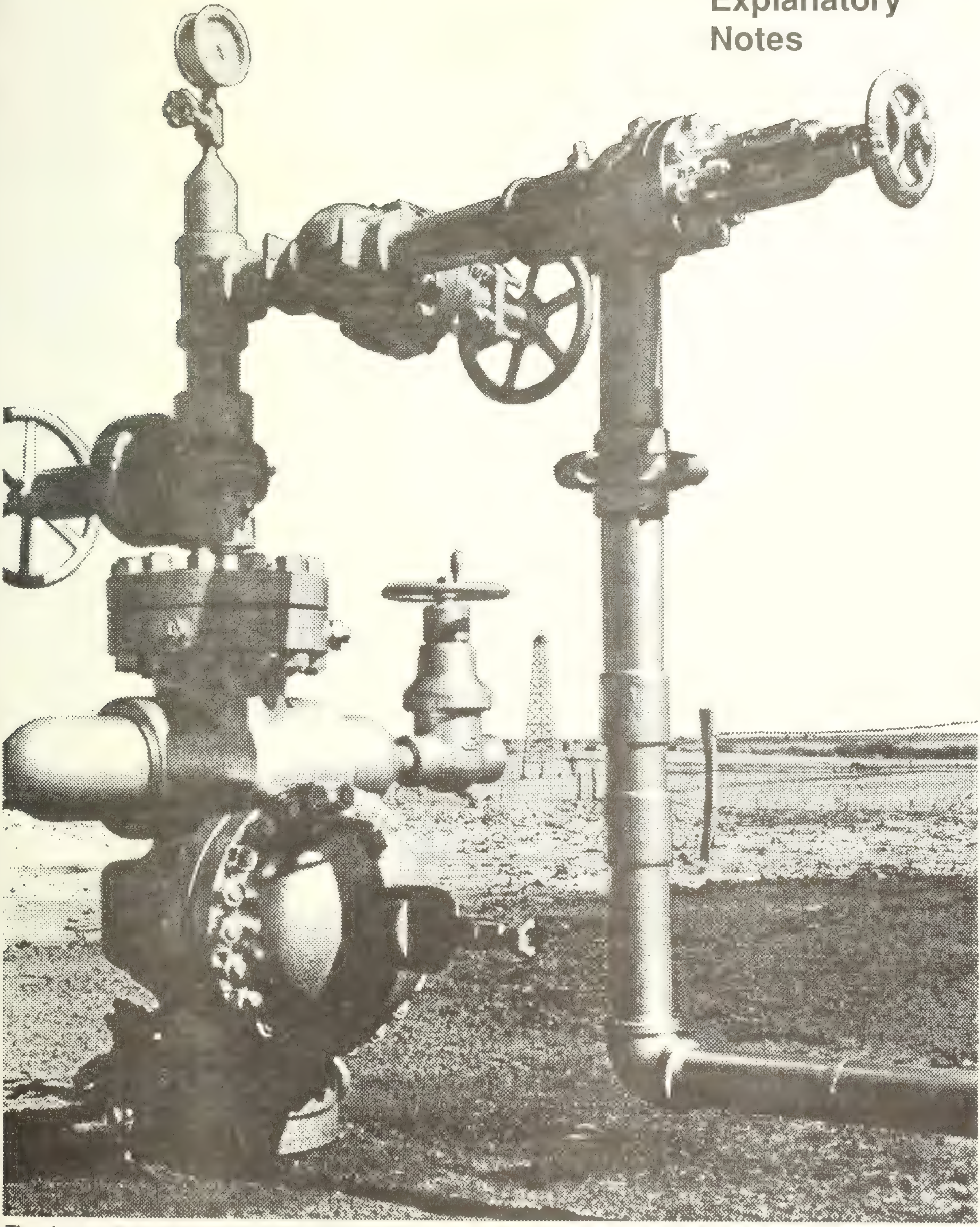


Refining Districts



Appendix B

Explanatory Notes



The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Explanatory Notes

Note 1. Overview

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 2. Petroleum Supply Reporting System
- Note 3. Monthly Petroleum Supply Reporting System
- Note 4. Preliminary Monthly Statistics Derivation
- Note 5. Summary Statistics Table Sources
- Note 6. Summary Statistics Figure Sources
- Note 7. Detailed Statistics Table Sources
- Note 8. Domestic Crude Oil Production
- Note 9. Export Data Source
- Note 10. Quality Control and Data Revision
- Note 11. Frames Maintenance
- Note 12. 1981 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System

Note 2. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*
EIA-820	*Annual Refinery Report*

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities which appear in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and are published in the *Weekly Petroleum Status Report.*

Forms EIA-810 through 814, 816 and 817 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery and natural gas plant operations data; refinery, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense Districts. A description of the MPSRS forms follow in Explanatory Note 3.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the Summary Statistics and the Detailed Statistics sections of the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is found in the feature article in the *PSM* entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the July 1989 issue and dealt with the years 1984-1988. Subsequent updates to this article will be published in the April issues of this publication.

The Form EIA-820, *Annual Refinery Report*, collects data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, and refinery operable and storage capacity. This survey is the primary source of data in the Refinery Capacity section of the *PSA*, Volume 1.

Note 3. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort by the Energy Information Administration (EIA) to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines began collecting data on refinery operations and crude oil stocks and movements. The collection systems were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable.

The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-813	*Monthly Crude Oil Report*
EIA-814	*Monthly Imports Report*
EIA-816	*Monthly Natural Gas Liquids Report*
EIA-817	*Monthly Tanker and Barge Movement Report*

Respondent Frame

Form EIA-810 *Monthly Refinery Report* - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811 *Monthly Bulk Terminal Report* - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possessions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. Approximately 350 respondents report on the Form EIA-811.

Form EIA-812 *Monthly Product Pipeline Report* - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 90 respondents report on the Form EIA-812.

Form EIA-813 *Monthly Crude Oil Report* - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 170 respondents report on the Form EIA-813.

Form EIA-814 *Monthly Imports Report* - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 860 respondents report on the Form EIA-814.

Form EIA-816 *Monthly Natural Gas Liquids Report* - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its component products (fractionator). Approximately 900 respondents report on the Form EIA-816.

Form EIA-817 *Monthly Tanker and Barge Movement Report*- All companies that have custody of crude oil or

petroleum products transported by tanker or barge between Petroleum Administration for Defense (PAD) Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 35 respondents report on the Form EIA-817.

Description of Survey Forms

The Form EIA-810, *Monthly Refinery Report*, collects data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, *Monthly Bulk Terminal Report*, collects data on end-of-month stock levels of finished petroleum products by State in the custody of the bulk terminal company regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, *Monthly Product Pipeline Report*.

The Form EIA-812, *Monthly Product Pipeline Report*, collects data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, *Monthly Crude Oil Report*, collects data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc. is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, *Monthly Imports Report*, collects data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands, and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of the processing or storage facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/alcohol, and blending components only.

The Form EIA-816, *Monthly Natural Gas Liquids Report*, collects data on the operations of natural gas processing plants and fractionators. Beginning and end-of-month stocks, receipts, inputs, production, shipments, and plant fuel use and losses during the month are collected from natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, *Monthly Tanker and Barge Movement Report*, collects data on the movements of crude oil and petroleum products between PAD Districts. Data is reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

Collection Methods

Survey forms for the MPSRS can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as

provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813 and 816. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and ending stocks. Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The information contained on Forms EIA-810 through 813, 816 and 817 are kept confidential to the extent that they satisfy the criteria for exemption in the Freedom of Information Act (FOIA), the Department of Energy regulations implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. The information contained on Form EIA-814 are not considered confidential and historically has not been treated as such.

Note 4. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities in the Summary Statistics section. The forms that comprise the WPSRS are:

Form Number	Name
EIA-800	*Weekly Refinery Report*
EIA-801	*Weekly Bulk Terminal Report*
EIA-802	*Weekly Product Pipeline Report*
EIA-803	*Weekly Crude Oil Stocks Report*
EIA-804	*Weekly Imports Report*

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates in the Summary Statistics section are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems — the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e.,stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) Then, the weight for each week is multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figure, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stocks figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday)

and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

Note 5. Summary Statistics Table Sources

Information about petroleum supply and disposition series at the National level are presented in the Summary Statistics tables. Definitions for the data series, corresponding to the column headings, are contained in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality. For most tables, the most current month, shown in italics is an estimate based on the data collected in the Weekly Petroleum Supply Reporting System (WPSRS). Refer to Explanatory Note 4. The source for the most current month where the data are not shown in italics is the Monthly Petroleum Supply Reporting System (MPSRS), reflecting that these data are not collected on a weekly basis. Statistics for earlier months and years were published in prior issues of the *Petroleum Supply Monthly* (PSM) and *Petroleum Supply Annual* (PSA). Following are the sources for the data contained in the Summary Statistics tables are:

- **Table S1. Crude Oil and Petroleum Products Overview**

  The current month statistics appear as labeled in Detailed Statistics (DS) Table 4, unless otherwise noted.

  Total Domestic Field Production is the sum of Crude Oil Field Production, Natural Gas Plant Liquids Field Production, and Other Hydrocarbons and Alcohol Field Production.

  Crude Oil Field Production is estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production.

  Natural Gas Plant Liquids Field Production is the sum of liquefied petroleum gases and pentanes plus produced at natural gas processing plants.

  Ending Stocks of Crude Oil and Petroleum Products appear in thousand barrels in DS Table 2.

  Petroleum Product Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports.

- **Table S2. Crude Oil Supply and Disposition**

  Unless otherwise noted, data are from DS Tables 2 and 4. Total Domestic Field Production and Alaskan Field Production are estimated according to procedures described in Explanatory Note 8, Domestic Crude Oil Production. SPR Imports, Other Imports, SPR Stock Change, Other Stock Change, SPR Ending Stocks and Other Primary Ending Stocks appear in DS Table 1.

- **Table S3. Crude Oil and Petroleum Product Imports**

  Data on the country of origin of imports are from DS Table 25.

- **Table S4. Finished Motor Gasoline Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S5. Distillate Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S6. Residual Fuel Oil Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

- **Table S7. Liquefied Petroleum Gases Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels.

  Total Production is the sum of Field Production and Refinery Production.

- **Table S8. Other Petroleum Products Supply and Disposition**

  Data are from DS Table 4 except for Ending Stocks. Ending Stocks are from DS Table 2 rounded to million barrels. Other Products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

Note 6. Summary Statistics Figure Sources

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities. Displayed below are the figure sources (Refer to Explanatory Note 4 for further detail).

Figure		Figure Source
Figure S1.	Petroleum Overview	Table S1
Figure S2.	Petroleum Products Supplied	Table S1
Figure S3.	Crude Oil Supply & Disposition	Table S2
Figure S4.	Crude Oil Ending Stocks	Table S2
Figure S5.	Finished Motor Gasoline Supply & Disposition	Table S4
Figure S6.	Motor Gasoline Ending Stocks	Table S4
Figure S7.	Distillate Fuel Oil Supply & Disposition	Table S5
Figure S8.	Distillate Fuel Oil Ending Stocks	Table S5
Figure S9.	Residual Fuel Oil Supply & Disposition	Table S6
Figure S10.	Residual Fuel Oil Ending Stocks	Table S6
Figure S11.	Liquefied Petroleum Gases Supply & Disposition	Table S7
Figure S12.	Liquefied Petroleum Gases Ending Stocks	Table S7

The national inventory (stocks) graphs (figures S4, S6, S8, S10, and S12) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases, in this publication included features to assist in comparing current inventory levels with past inventory levels and minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

Note 7. Detailed Statistics Table Sources

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (PAD) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. The table, form or other source for items of each table are described below. Column and row headings are defined in the Glossary.

- **Table 1** - Energy Information Administration (EIA) Forms EIA-810 through 817, forecast estimate for domestic crude oil production, and Census Export data (EM-522 and EM-594).
    - Lines (1) through (3): Crude Oil Field Production for Alaska and Total U.S. appear as labeled in Table 16. Lower 48 states are calculated by subtracting Alaska crude oil production from Total U. S. crude oil production.
    - Line (4): Crude Oil Imports, excluding Strategic Petroleum Reserve (SPR), are reported on Form EIA-814.
    - Line (5): SPR Imports are reported on Form EIA-814.

- Line (6): Exports of crude oil taken from Census tapes and data are reported on Form EIA-810 for U.S. territories.

- Line (7): Sum of lines (4) through (6).

- Line (8): The difference between the previous month and current month ending stocks held in the SPR.

- Line (9): The difference between the previous month and current month ending stocks (excluding SPR).

- Line (10): The sum of Crude Oil Product Supplied and Crude Losses as shown in Table 2.

- Line (11): Unaccounted for (Other Sources) is a balancing item for crude oil that represents the difference between crude oil supply and disposition.

- Line (12): Total Other Sources equals crude oil stock change, plus unaccounted for crude oil, minus crude oil losses, minus crude oil product supplied.

- Line (13): Crude Input to Refineries is the sum of lines (3), (7), and (12).

- Line (14): Natural Gas Liquids (NGL) Field Production equals field production of NGLs as shown in Table 2.

- Line (15): NGL Net Imports equals the sum of the imports of pentanes plus minus the exports of pentanes plus as shown in Table 2.

- Line (16): NGL Stock Change is equal to the stock change of pentanes plus in Table 2.

- Line (17): Total NGL Supply equals the sum of lines (14), (15), and (16).

- Line (18): Other Liquids Stock Change equals the aggregate stock change for other hydrocarbons and alcohol, unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (19): The sum of unfinished oils and motor and aviation gasoline blending component imports reported on Form EIA-814.

- Line (20): Other Hydrocarbons and Alcohol New Supply equals the field production of same in Table 2 and is calculated by taking imports minus stock change minus refinery input.

- Line (21): Refinery Processing Gain is a balancing item equal to total refinery production minus total refinery input as shown in Table 2.

- Line (22): Crude Oil Product Supplied equals the amount reported on Form EIA-813 as crude oil consumed as fuel.

- Line (23): Total Other Liquids equals the sum of lines (18) through (22).

- Line (24): Total Production of Products equals the sum of lines (13), (17), and (23).

- Line (25): Gross Imports of Refined Products equals imports of LPGs plus imports of finished petroleum products as shown in Table 2.

- Line (26): Exports of Refined Products equals exports of LPGs plus exports of finished petroleum products as shown in Table 2.

- Line (27): Net Imports of Refined Products equals the difference between lines (25) and (26).

- Line (28): Total New Supply of Products equals the sum of lines (24) and (27).

- Line (29): Refined Products Stock Change equals the sum of stock change for LPGs and finished petroleum products in Table 2.

- Line (30): Total Petroleum Products Supplied for Domestic Use equals the total products supplied as shown in Table 2.

- Lines (31) through (34): Equal the respective products supplied of same in Table 2.

- Line (35): Other Products Supplied equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.

- Line (36): Crude Oil Product Supplied is equal to the amount displayed on Table 2.

- Line (37): Total Products Supplied is equal to total products supplied in Table 2.

- Lines (38) and (39): Stocks of Crude Oil (Excluding SPR) and stocks held by the SPR equals ending stocks of crude in Table 2.
- Line (40): Finished Motor Gasoline stocks equals ending stocks displayed on Table 2.
- Line (41): Distillate Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (42): Residual Fuel Oil stocks equals ending stocks displayed on Table 2.
- Line (43): Liquefied Petroleum Gases stocks equals ending stocks displayed on Table 2.
- Line (44): Other Products stocks equals the sum of pentanes plus, aviation gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, naphtha less than 401 degrees fahrenheit for petrochemical feedstock use, other oils equal to or greater than 401 degrees fahrenheit for petrochemical feedstock use, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, unfinished oils, other hydrocarbons/alcohol, motor gasoline blending components, aviation gasoline blending components, and miscellaneous products products supplied in Table 2.
- Line (45): Equals the sum of lines (38) through (44).

- **Table 2**

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, and other liquids.

Crude oil production is an estimate based on data received from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 8 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by adding the stock change to the refinery inputs reported on Form EIA-810, *Monthly Refinery Report*.

Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery Production - Published production of these products equal refinery production minus refinery input as reported on Form EIA-810, *Monthly Refinery Report*. Refinery production of other hydrocarbons, hydrogen and alcohol, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports - Imports of crude oil and petroleum products are reported on Form EIA-814, *Monthly Imports Report*.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems). A negative result indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries on Form EIA-810, *Monthly Refinery Report*, as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and alcohol, liquefied petroleum gases, and pentanes plus) reported on Form EIA-810, *Monthly Refinery Report*, that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing are reported on Form EIA-810, *Monthly Refinery Report*. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and alcohol are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are reported on Form EIA-810, *Monthly Refinery Report*, and published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - The source of these data are the U.S. Bureau of the Census and the Form EIA-810, *Monthly Refinery Report*. Exports of crude oil and petroleum products are compiled from U.S. Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments from the 50 states to Puerto Rico, and the Virgin Islands, and are obtained from refinery receipts reported on Form EIA-810, *Monthly Refinery Report*, by refineries located in Puerto Rico and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel . These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Ending Stocks - Ending stocks of crude oil are reported on Forms EIA-810 and 813. Ending stocks of natural gas liquids and LRGs are reported on Forms EIA-810, 811, 812 and 816. Ending stocks for other liquids are reported on Forms EIA-810 and 811. Ending stocks for finished petroleum products are reported on Forms EIA-810, 811, 812.

- **Table 3** - Sources are the same as described in Table 2. The values in this table are year-to-date quantities.

- **Table 4** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 2 by the number of days in the report month.

- **Table 5** - Sources are the same as described in Table 2. The values in this table are calculated by dividing the values in Table 3 by the number of days in the year-to-date.

- **Tables 6 through 15** - Sources are the same as described for Table 2 for all corresponding column headers. A net receipts column is required to calculate products supplied on a PAD District basis. Net receipts are calculated from data on inter-PAD District movements reported on Forms EIA-812, 813, and 817.

- **Table 16** - State government agencies. See Explanatory Note 8.

  Table 16 provides estimates for crude oil production for the latest month for which State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

- **Table 17** - Form EIA-816, *Monthly Natural Gas Liquids Report*.

  Production of these products equals natural gas processing plant production minus natural gas processing plant input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 18** - Form EIA-810, *Monthly Refinery Report*.

- **Table 19** - Form EIA-810, *Monthly Refinery Report*.

Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

- **Table 20** - Form EIA-810, *Monthly Refinery Report.*

- **Table 21** - Calculated from Tables 18 and 19.

  To calculate the refinery yields of finished motor gasoline, subtract the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/alcohol and motor gasoline blending components reported on Table 18 from the production of finished motor gasoline reported on Table 19 before dividing by the sum of crude oil input and unfinished oils input (net).

  To calculate the refinery yield of finished aviation gasoline, subtract the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

  To arrive at refinery yields for all products (except finished motor gasoline and finished aviation gasoline), the production for each product listed on Table 19 is divided by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total column on Table 18.

- **Tables 22 through 34** - Form EIA-814, *Monthly Imports Report.*

- **Tables 35 through 38** - Census Export data (EM-522 and 594) and Form EIA-810, *Monthly Refinery Report.*

- **Tables 39 and 40** - Form EIA-814, *Monthly Imports Report*, Census Export data (EM 522 and 594) and Form EIA-810, *Monthly Refinery Report.*

  A negative number will occur when the amount of a product imported is less than the amount of that same product exported during the same month.

- **Table 41** - Primary stocks of crude oil are the sum of ending stocks reported on Forms EIA-810 and EIA-813. Crude oil held in the Strategic Petroleum Reserve and Alaskan crude oil in transit are shown as separate entries. Primary stocks of petroleum products are summed from data reported on Forms EIA-810 through 812 and EIA-816. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

- **Table 42** - Forms EIA-810, *Monthly Refinery Report* and EIA-811, *Monthly Bulk Terminal Report.*

- **Table 43** - Forms EIA-812, *Monthly Product Pipeline Report*, EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report.*

- **Table 44** - Crude Oil (Form EIA-813, *Monthly Crude Oil Report*), Petroleum Products (Form EIA-812, *Monthly Product Pipeline Report*).

  Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

  Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

- **Table 45** - Form EIA-817, *Monthly Tanker and Barge Movement Report.* Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

- **Table 46** - Crude Oil (Forms EIA-813, *Monthly Crude Oil Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*), Petroleum Products (Forms EIA-812, *Monthly Product Pipeline Report* and EIA-817, *Monthly Tanker and Barge Movement Report*).

Note 8. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*. After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual* (PSA).

Table 16 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month. Approximately 75 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the State (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, *Domestic Crude Oil First Purchase Report*; (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is used in the *Weekly Petroleum Status Report*, and in the *Petroleum Supply Monthly* (PSM) Tables S1 and S2 until replaced by the interim estimate.

- The interim estimate is used in the *PSM* Tables 1 through 15, and in Tables S1 and S2 until replaced by the final estimate.

- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the *Petroleum Marketing Annual*.

- The final estimate is published in the *PSA*.

Note 9. Export Data Source

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the *Petroleum Supply Monthly* reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

(1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

(2) Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Table B1. U.S. Crude Oil[a] Production Estimates and Reported State[b] Data by Month

Date of Data Availability	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90	11-90
	Reported State Data[c]																	
7-14-89	0																	
8-14-89	1930	0																
9-14-89	2748	1789	0															
10-14-89	7008	4491	1939	0														
11-14-89	7023	6825	4796	1974	0													
12-14-89	7479	6876	6960	4639	1960	0												
1-14-90	7508	7307	7380	6659	4426	1993	0											
2-14-90	7515	7311	7400	7385	6640	4406	1990	0										
3-14-90	7576	7370	7460	7445	7367	6975	4649	1927	0									
4-14-90	7622	7428	7537	7542	7447	7532	6259	4575	1912	0								
5-14-90	7626	7438	7544	7549	7456	7541	7308	6240	4598	1893	0							
6-14-90	7629	7449	7549	7555	7461	7559	7305	7366	7274	4337	1977	0						
7-14-90	7629	7450	7549	7555	7462	7568	7314	7382	7320	6820	4705	1841	0					
8-14-90	7638	7452	7549	7556	7464	7572	7315	7393	7338	7256	6742	4444	1672	0				
9-14-90	7638	7452	7549	7556	7464	7572	7316	7394	7339	7263	6831	6701	3919	1757	0			
10-14-90	7638	7452	7549	7556	7464	7572	7316	7415	7370	7292	7264	6753	6530	4291	1758	0		
11-14-90	7638	7452	7549	7556	7464	7572	7316	7421	7385	7308	7279	7177	6553	6560	4226	1787	0	0
	Producing States Without Reported Monthly Production[d]																	
11-14-90	0	0	0	0	0	0	0	4	4	4	4	5	6	6	22	28	33	33

	6-89	7-89	8-89	9-89	10-89	11-89	12-89	1-90	2-90	3-90	4-90	5-90	6-90	7-90	8-90	9-90	10-90	11-90
	Production Estimate																	
Original[e]	7726	7622	7662	7641	7644	7601	7565	7512	7399	7410	7310	7241	6981	7130	6971	6991	7261	
Interim[f]	7660	7474	7589	7563	7462	7564	7372	7522	7465	7394	7331	7259	7076	7144	7215	7167		
Form EIA-182																		
Initial	7544	7351	7497	7442	7378	7473	7243	7479	7458	7356	7316	7220	7013	7116	7274	7146		
Revised	7541	7351	7499	7448	7389	7497	7247	7481	7440	7368	7317	7223	7022	7112	7282			
Final[g]	7624	7444	7544	7548	7453	7536	7337											

[a] Includes lease condensate.

[b] Includes Federal offshore areas, Gulf of Mexico (PAD District III) and Pacific (PAD District V), as two separate reporting entities.

[c] Includes EIA prorated monthly production in 1989 (annual average of 96 thousand barrels per day) for four States (Michigan, New York, Ohio, and Pennsylvania) for which only annual State data are available.

[d] Michigan is counted as having monthly reported data in 1989 after its annual report was received. These data were first reported as of 3-14-90. New York, Ohio, and Pennsylvania are counted as having monthly reported data in 1989 after their annual reports were received. These data were first reported as of 4-14-90.

[e] Original estimates were made on the first of each month. The original estimate for October 1990 was revised to 7292 thousand barrels per day on November 15, 1990.

[f] Interim estimates were made 44 days after the end of the production month.

[g] Published in the *Petroleum Supply Annual* 1989, DOE/EIA 0340(89)/2.

Note 10. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) monitors the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

In any survey, nonresponse can be a major concern because the effects can cause serious bias in survey results. Nonresponse occurs whenever requested information is not obtained from all units in a survey. The PSRS surveys have a very high response rate. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, *Monthly Imports Report*, and EIA-817, *Monthly Tanker and Barge Movement Report*. There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the difference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns many of these errors can be identified and corrected.

A principal objective of PSRS surveys is to provide a timely and accurate picture of petroleum industry activities. As part of this objective, a comparison of the data collected on the PSRS with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply" and in subsequent explanatory notes.

Resubmissions

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by respondent. Resubmissions are compared to the original submission and processed at the time of receipt. The Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a summary of the effect of these resubmissions to major series is provided in Appendix C.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., three consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 11. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted within three time frames: monthly, annually, and triennially. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership. Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814.

To supplement monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PSD conducts a comprehensive triennial frames investigation. These triennial evaluations result in the reassessment and recompilation of the complete frame for each survey.

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).
- Crude Oil and Petroleum Products: 1974 - 1,121; 1980 -1,425; and 1982 - 1462.
- Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).
- Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.
- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.
- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.
- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.
- Stock change calculations beginning in 1975, 1981, and 1983 were made using new basis stock levels.

Note 12. 1981 Changes in the Petroleum Supply Reporting System

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures, and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration (EIA) in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting system.

The EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings through 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B2 provides 1979 and 1980 data as published in the *Petroleum Statement, Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*.

Table B2. Finished Motor Gasoline Product Supplied
(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA[a]
1979	7,034	7,302	7,183-7,347	7,258
1980	6,579	6,882	6,806-6,889	6,792

[a] FHWA gasoline statistics based on data from Federal Highway Administration, Estimate of Total Gasoline Use, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oils produced by a refinery are shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate fuel oil, and one-third to residual fuel oil.

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B3 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of finished motor gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Table B3. Distillate and Residual Fuel Oil Production and Product Supplied
(Thousand Barrels per Day)

	Adjusted Refinery Production	Unadjusted Refinery Production	Difference	Unadjusted Product Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Alaskan In Transit Stocks

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGL) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the Energy Information Administration (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported on a five component basis (see Table B4) to be consistent with record keeping practices used by the industry. This table shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

Table B4. Product Basis vs. Component Basis Reporting

1979-1983 Product Basis	1984 Component Basis				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures			•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

EIA-810	*Monthly Refinery Report*
EIA-811	*Monthly Bulk Terminal Report*
EIA-812	*Monthly Product Pipeline Report*
EIA-816	*Monthly Natural Gas Liquids Report*

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 108.
- Other Petroleum Products: 248.

A fifth survey, the Form EIA-814, *Monthly Imports Report* (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the importers.

Exports

The export algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B5 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense Districts of exportation, due to the wide variation of components included in the mixed streams.

Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of entry* (Tables 6-10) and by *PAD District of processing* (Tables 16-19).

The tables in the *Petroleum Supply Monthly* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are the following:

- Tables 6 through 10, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products".
  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 4 through 8 were reported at the *PAD District of entry* rather than at the *PAD District of processing*. *Net Receipts* now include movements by pipeline as well as by tanker and barge.
- Table 26, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 27, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
  - A line was added to report crude oil movements.
- Table 29, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

Table B5. Algorithm for Allocating NGL Imports/Exports
(Percent)

	EIA Component Slate				
	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Import Product					
Natural Gasoline and Isopentane (EIA-814) ...	—	—	—	—	100
Plant Condensate (EIA-814) ...	—	—	—	—	100
Ethane (IM-145) ...	100	—	—	—	—
Propane (IM-145) ...	—	100	—	—	—
Butane (IM-145) ...	—	—	65	35	—
Butane-Propane Mixtures (IM-145) ...	—	40	35	20	5
Ethane-Propane Mixtures (IM-145) ...	60	40	—	—	—
Export Product					
Ethane (All PAD Districts) ...	100	—	—	—	—
Propane (All PAD Districts) ...	—	100	—	—	—
Butane (All PAD Districts) ...	—	—	100	—	—
Mixed Streams					
PAD Districts I, IV, V ...	—	40	60	—	—
PAD District II ...	30	25	15	15	15
PAD District III ...	—	80	20	—	—

Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* (PSM).

Changes in Survey Frames

As a result of frames maintenance activities, 39 respondents were added to the monthly survey frames. Table B6 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-816, *Monthly Natural Gas Liquids Report* for two facilities were combined with data reported for two refineries on Form EIA-810, *Monthly Refinery Report*. The primary impact of this reporting change is on Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District," which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Changes in Publication Tables

Several changes were also made to tables in the *PSA* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
  - Alaskan crude oil receipts were shown separately.
- Table 14, "Refinery Production of Petroleum Products by PAD District."
  - The "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 16 and 17, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Table 18 and 19, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.

- Table 24, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information.

Changes in Data Collection

Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, *Monthly Refinery Report.*

Changes in Publication Tables

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affected *Petroleum Supply Monthly* (PSM) Tables 12 through 15, 24, 30, and 31.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 13, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSA* statistics. The principal differences in the *PSA* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989 and subsequently reflected in the *Petroleum Supply Annual.*

Changes in Data Collection

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, *Monthly Refinery Report.*

Table B6. Impact of New Respondents to December 1985 PSM Data

	Refinery Production (thousand barrels per day)		Stocks[a] (thousand barrels)	
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total
Leaded Gasoline	1.3	2,326	224	81,379
Unleaded Gasoline	0.6	4,323	276	108,422
Distillate Fuel Oil	0	3,174	1,217	143,911
Residual Fuel Oil	0	1,055	1,747	50,671
NGLs & LRGs	0	393	409	80,898
Other Products	0	3,302	1,413	239,158
Crude Oil (excl. SPR)	—	—	2,314	318,695

[a] Stocks as of December 31, 1985.

- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene)were added to Form EIA-810, *Monthly Refinery Report.*

- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, *Monthly Product Pipeline Report*, and the EIA-817, *Monthly Tanker and Barge Movement Report.*

- Bonded imports of jet fuel and fuel oils and imports of LPGs previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, *Monthly Imports Report.*

- Exports of butane/propane and ethane/propane mixtures were split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.

- The reporting of products other than Natural Gas Liquids (NGLs) by natural gas processing plants was eliminated on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

- Fractionators were required to report only end-of-month stocks of NGLs on the Form EIA-816, *Monthly Natural Gas Liquids Report.*

Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments were being made to refinery inputs and product supplied of NGLs and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mixture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment was made to refinery input in all Petroleum Administration for Defense (PAD) Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *Petroleum Supply Annual* published in May 1989. Revisions for 1987 data are not planned.

Changes in Publication Tables

- Year-to-Date tables on Supply and Disposition by PAD District (Tables 7, 9, 11, 13, and 15) were added.

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 15. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

- A jet fuel total line was added to Tables 2-15, 19, 20, 23, 24, 43-46.

- PAD District Supply and Disposition tables (Tables 6 through 15) now display liquefied petroleum gases on a component basis.

- Tables showing net imports by country for the current month and year-to-date (Tables 39 and 40) were added.

- Table numbers were changed as a result of data additions and table reorganization. Table B7 is provided to show the new to old table numbers for the detailed statistics tables.

- Table 17, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts."
  - Stocks at natural gas processing plants by Refining Districts previously published on Table 24 was included with net production of petroleum products at natural gas plants.
  - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.

- Table 19, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."
  - Net production of olefins (ethylene, propylene, and butylene) was added.

Table B7. Conversion Table for 1989 PSM

Table Numbers											
New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
1	1	9	NA	17	12, 24	25	18, 33	33	19	41	24, 31
2	2	10	8	18	13	26	18, 33	34	19	42	25
3	3	11	NA	19	14, 30	27	18, 33	35	20	43	26
4	4	12	9	20	24, 31	28	18, 33	36	21	44	27
5	5	13	NA	21	15	29	18, 33	37	22	45	28, 32
6	6	14	10	22	34	30	19	38	23	46	29
7	NA	15	NA	23	16	31	19	39	NA		
8	7	16	11	24	17	32	19	40	NA		

NA = Not Applicable

  - Net production of naphthenic and paraffinic lubricants was added.
  - Net production of residual fuel oil by percent sulfur, previously published as Table 30, was added.

- Table 20, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts."
  - Stocks at refineries by Refining District were added from the old stock table (Table 24).
  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 31, were added.

- Tables 25 through 34, "Imports of Crude Oil and Petroleum Products by Country of Origin."
  - Data previously included in the "Other Products" category were displayed separately for the following products: naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
  - Sulfur content categories for residual fuel oil, previously published as Table 33, were added.

- Tables 37 and 38, "Exports of Crude Oil and Petroleum Products by Destination."
  - Data for exports by destination previously included in the "Other Products" category were displayed separately for the following products: pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.

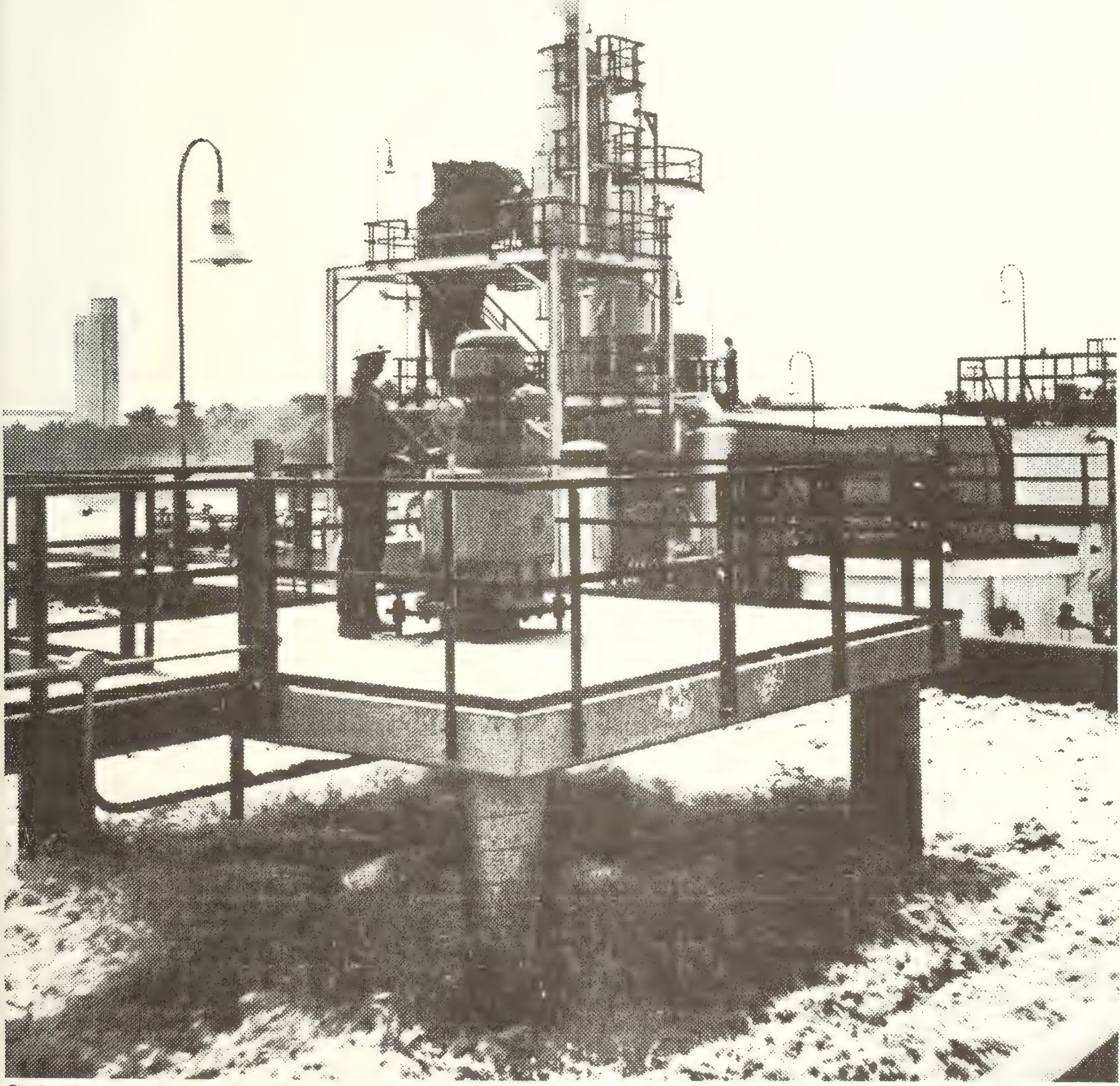
- Table 41, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Tables 17 and 20, respectively.
  - Sulfur content categories for residual fuel oil, previously published as Table 31, were added.

Appendix C

Impact of Resubmissions on Major Series, 1990

This table contains information on revisions to published statistics caused by resubmission of respondent survey forms. The table shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This table is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the PSA.



Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Table C1. Impact of Resubmissions on Major Series, 1990
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value
Inputs	**14,614**	**15**	**14,484**	**2**	**13,868**	**5**	**14,112**	**4**	**14,136**	**8**	**14,815**
Crude Oil	13,499	-2	13,494	-1	12,876	4	13,051	4	13,389	(s)	13,690
Pentanes Plus	165	1	176	2	171	1	179	0	179	0	173
LPGs	416	-3	346	-2	205	(s)	200	(s)	216	0	220
Ethane/Ethylene	0	0	(s)	0	(s)	0	1	0	(s)	0	(s)
Propane/Propylene	7	0	9	0	8	0	6	0	8	0	9
Normal Butane/Butylene	248	-2	183	-1	68	(s)	53	(s)	53	0	54
Isobutane	161	-1	154	-1	129	(s)	141	(s)	154	0	158
Other Hydrocarbons	68	6	66	4	65	0	74	0	75	(s)	71
Unfinished Oils	534	26	513	(s)	481	(s)	510	1	338	8	599
Motor Gas. Blend. Comp	-68	-11	-107	-1	69	(s)	98	(s)	-60	(s)	61
Aviation Gas. Blend. Comp	1	0	-3	0	1	0	1	0	-1	0	-1
Production	**16,868**	**33**	**16,830**	**10**	**16,116**	**19**	**16,310**	**17**	**16,343**	**10**	**16,994**
Pentanes Plus	288	9	304	7	299	5	296	3	306	3	307
LPGs	1,700	-12	1,784	-33	1,760	5	1,738	10	1,760	4	1,722
Ethane/Ethylene	462	5	465	6	454	3	453	5	448	(s)	434
Propane/Propylene	874	9	914	6	880	(s)	862	2	848	1	836
Normal Butane/Butylene	228	-28	230	-46	256	1	258	3	291	2	283
Isobutane	136	2	176	1	169	1	165	1	173	1	169
Other Hydrocarbons	66	-10	69	-5	72	5	72	0	80	-1	73
Finished Motor Gasoline	6,889	-28	6,978	-1	6,612	1	6,764	4	6,599	-1	7,084
Leaded	411	-8	396	-1	389	(s)	393	2	400	(s)	380
Unleaded	6,477	-20	6,582	(s)	6,223	1	6,371	2	6,199	-1	6,704
Finished Aviation Gasoline	16	0	22	0	20	0	22	0	28	0	29
Jet Fuel	1,486	-1	1,498	-1	1,425	0	1,335	-1	1,365	-2	1,355
Naphtha-Type Jet	187	-1	200	-1	201	0	178	(s)	198	0	175
Kerosene-Type Jet	1,299	(s)	1,298	0	1,224	0	1,156	(s)	1,167	-2	1,181
Kerosene	134	0	96	0	70	0	63	0	50	0	29
Distillate Fuel Oil	3,136	-7	2,753	(s)	2,655	1	2,802	(s)	2,873	(s)	2,995
Residual Fuel Oil	1,129	33	1,060	0	974	1	880	1	877	6	926
Naphtha Pet. Feedstock	109	21	133	0	143	0	137	0	142	0	109
Other Oils Pet. Feedstock	200	25	264	42	268	0	303	0	287	0	246
Special Naphthas	54	-1	54	0	52	0	56	(s)	59	0	60
Lubricants	156	(s)	166	0	162	0	173	0	165	0	155
Waxes	14	0	19	(s)	17	0	15	0	15	0	16
Petroleum Coke	538	2	561	0	537	0	546	(s)	541	(s)	548
Asphalt and Road Oil	251	0	326	0	345	0	382	0	480	0	571
Still Gas	642	2	676	0	649	0	670	0	650	1	700
Miscellaneous Products	58	(s)	67	1	55	(s)	57	0	66	(s)	68
Imports	**9,147**	**46**	**8,306**	**87**	**7,925**	**32**	**7,758**	**78**	**8,738**	**57**	**8,690**
Crude Oil	6,206	6	5,858	36	6,125	-8	5,740	59	6,438	-5	6,413
Pentanes Plus	18	0	11	0	4	0	4	0	13	0	4
LPGs	245	15	223	11	152	2	148	2	189	1	201
Ethane/Ethylene	8	0	0	2	6	0	5	0	5	0	5
Propane/Propylene	172	13	147	5	117	1	115	(s)	135	(s)	100
Normal Butane/Butylene	53	(s)	65	-7	22	1	19	1	37	1	69
Isobutane	12	2	11	12	7	1	9	(s)	13	0	27
Other Hydrocarbons	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils	441	0	401	0	369	20	350	11	430	-7	384
Motor Gas.Blend.Comp	71	0	61	0	71	0	49	0	74	(s)	131
Aviation Gas. Blend. Comp	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	417	(s)	407	4	265	5	327	0	535	49	361
Leaded	1	0	(s)	0	(s)	0	0	0	2	0	3
Unleaded	416	(s)	407	4	265	5	327	0	533	49	358
Finished Aviation Gasoline	0	0	0	0	(s)	0	(s)	0	(s)	0	(s)
Jet Fuel	157	6	147	12	109	11	103	0	113	6	125
Naphtha-Type Jet	1	0	1	0	2	0	1	0	2	0	2
Kerosene-Type Jet	155	6	145	12	108	11	102	0	111	6	122
Kerosene	24	0	6	0	1	0	6	0	(s)	0	8
Distillate Fuel Oil	501	4	357	(s)	280	(s)	308	(s)	207	2	257
Residual Fuel Oil	809	16	640	23	334	1	555	4	507	2	536
Naphtha Pet. Feedstock	139	-71	118	-62	111	-49	47	0	59	0	39
Other Oils Pet. Feedstock	74	67	18	62	65	49	79	0	111	0	166
Special Naphthas	5	3	14	1	3	(s)	10	1	18	-2	15
Lubricants	12	0	14	0	11	0	7	0	3	13	7
Waxes	1	0	2	0	1	0	1	0	1	0	1
Petroleum Coke	1	0	5	0	1	0	2	0	1	0	1
Asphalt and Road Oil	25	0	21	(s)	19	(s)	20	0	35	(s)	41
Miscellaneous Products	2	(s)	2	0	2	(s)	1	(s)	3	0	1

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs	**15,392**	**1**	--	--	--	--	--	--	--	--	--	--	**5**
Crude Oil	14,208	1	--	--	--	--	--	--	--	--	--	--	1
Pentanes Plus	186	0	--	--	--	--	--	--	--	--	--	--	1
LPGs	230	0	--	--	--	--	--	--	--	--	--	--	-1
Ethane/Ethylene	0	0	--	--	--	--	--	--	--	--	--	--	0
Propane/Propylene	8	0	--	--	--	--	--	--	--	--	--	--	0
Normal Butane/Butylene	64	0	--	--	--	--	--	--	--	--	--	--	(s)
Isobutane	158	0	--	--	--	--	--	--	--	--	--	--	(s)
Other Hydrocarbons	62	(s)	--	--	--	--	--	--	--	--	--	--	1
Unfinished Oils	746	(s)	--	--	--	--	--	--	--	--	--	--	5
Motor Gas. Blend. Comp	-42	0	--	--	--	--	--	--	--	--	--	--	-2
Aviation Gas. Blend. Comp	1	0	--	--	--	--	--	--	--	--	--	--	0
Production	**17,554**	**5**	--	--	--	--	--	--	--	--	--	--	**17**
Pentanes Plus	310	1	--	--	--	--	--	--	--	--	--	--	4
LPGs	1,750	3	--	--	--	--	--	--	--	--	--	--	-3
Ethane/Ethylene	453	1	--	--	--	--	--	--	--	--	--	--	3
Propane/Propylene	859	1	--	--	--	--	--	--	--	--	--	--	3
Normal Butane/Butylene	261	(s)	--	--	--	--	--	--	--	--	--	--	-9
Isobutane	178	1	--	--	--	--	--	--	--	--	--	--	1
Other Hydrocarbons	70	(s)	--	--	--	--	--	--	--	--	--	--	-1
Finished Motor Gasoline	7,230	0	--	--	--	--	--	--	--	--	--	--	-4
Leaded	406	0	--	--	--	--	--	--	--	--	--	--	-1
Unleaded	6,824	0	--	--	--	--	--	--	--	--	--	--	-3
Finished Aviation Gasoline	26	0	--	--	--	--	--	--	--	--	--	--	0
Jet Fuel	1,400	(s)	--	--	--	--	--	--	--	--	--	--	-1
Naphtha-Type Jet	126	0	--	--	--	--	--	--	--	--	--	--	(s)
Kerosene-Type Jet	1,274	(s)	--	--	--	--	--	--	--	--	--	--	(s)
Kerosene	76	(s)	--	--	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil	3,006	(s)	--	--	--	--	--	--	--	--	--	--	-1
Residual Fuel Oil	987	(s)	--	--	--	--	--	--	--	--	--	--	6
Naphtha Pet. Feedstock	152	(s)	--	--	--	--	--	--	--	--	--	--	5
Other Oils Pet. Feedstock	305	0	--	--	--	--	--	--	--	--	--	--	10
Special Naphthas	59	0	--	--	--	--	--	--	--	--	--	--	(s)
Lubricants	175	0	--	--	--	--	--	--	--	--	--	--	(s)
Waxes	21	0	--	--	--	--	--	--	--	--	--	--	0
Petroleum Coke	554	0	--	--	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil	626	0	--	--	--	--	--	--	--	--	--	--	0
Still Gas	743	0	--	--	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products	65	0	--	--	--	--	--	--	--	--	--	--	(s)
mports	**8,893**	**103**	--	--	--	--	--	--	--	--	--	--	**62**
Crude Oil	6,812	(s)	--	--	--	--	--	--	--	--	--	--	14
Pentanes Plus	3	0	--	--	--	--	--	--	--	--	--	--	0
LPGs	156	(s)	--	--	--	--	--	--	--	--	--	--	4
Ethane/Ethylene	0	0	--	--	--	--	--	--	--	--	--	--	(s)
Propane/Propylene	90	(s)	--	--	--	--	--	--	--	--	--	--	3
Normal Butane/Butylene	45	(s)	--	--	--	--	--	--	--	--	--	--	-1
Isobutane	21	0	--	--	--	--	--	--	--	--	--	--	2
Other Hydrocarbons	0	0	--	--	--	--	--	--	--	--	--	--	0
Unfinished Oils	353	0	--	--	--	--	--	--	--	--	--	--	12
Motor Gas.Blend.Comp	70	20	--	--	--	--	--	--	--	--	--	--	3
Aviation Gas. Blend. Comp	0	0	--	--	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline	372	60	--	--	--	--	--	--	--	--	--	--	19
Leaded	1	0	--	--	--	--	--	--	--	--	--	--	0
Unleaded	372	60	--	--	--	--	--	--	--	--	--	--	19
Finished Aviation Gasoline	(s)	0	--	--	--	--	--	--	--	--	--	--	0
Jet Fuel	85	15	--	--	--	--	--	--	--	--	--	--	7
Naphtha-Type Jet	2	0	--	--	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet	83	15	--	--	--	--	--	--	--	--	--	--	7
Kerosene	1	0	--	--	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil	229	7	--	--	--	--	--	--	--	--	--	--	2
Residual Fuel Oil	535	1	--	--	--	--	--	--	--	--	--	--	-1
Naphtha Pet. Feedstock	67	0	--	--	--	--	--	--	--	--	--	--	-26
Other Oils Pet. Feedstock	150	0	--	--	--	--	--	--	--	--	--	--	25
Special Naphthas	4	0	--	--	--	--	--	--	--	--	--	--	(s)
Lubricants	12	0	--	--	--	--	--	--	--	--	--	--	2
Waxes	1	0	--	--	--	--	--	--	--	--	--	--	0
Petroleum Coke	5	0	--	--	--	--	--	--	--	--	--	--	0
Asphalt and Road Oil	37	0	--	--	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products	2	(s)	--	--	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Differ
Stocks (Thousand Barrels)	**1,051,022**	**-1,502**	**1,058,003**	**-3,862**	**1,061,200**	**-1,428**	**1,056,496**	**107**	**1,084,920**	**1,071**	**1,097,103**	**72**
Crude Oil (excl. SPR)	352,267	-3,117	343,081	-3,484	373,655	-2,735	369,705	855	382,480	201	384,237	98
Pentanes Plus	7,968	127	7,239	10	7,334	-76	7,091	23	7,279	4	7,757	0
LPGs	76,107	486	76,675	651	77,962	1,584	82,047	102	90,706	145	104,249	147
Ethane/Ethylene	23,585	147	24,511	479	24,158	-296	24,219	4	22,899	1	22,378	0
Propane/Propylene	32,979	192	32,171	804	31,103	1,704	31,705	73	35,584	138	43,990	146
Normal Butane/Butylene	12,571	106	12,142	-218	14,739	199	17,857	-2	22,867	5	27,893	0
Isobutane	6,972	41	7,851	-414	7,962	-23	8,266	27	9,356	1	9,988	1
Other Hydrocarbons	644	132	749	167	977	0	907	0	1,037	9	1,104	0
Unfinished Oils	103,511	-89	106,468	-101	109,780	-5	108,729	-12	116,582	44	117,515	1
Motor Gas. Blend. Comp	40,350	-148	44,325	-214	42,133	0	39,126	-45	39,575	28	37,554	0
Aviation Gas. Blend. Comp.	141	0	180	0	145	0	125	0	159	0	178	0
Finished Motor Gasoline	195,634	1,294	201,341	6	186,056	-203	184,486	-72	178,416	222	175,840	-16
Leaded	17,828	-36	15,444	-146	13,559	-181	12,603	-20	11,906	-23	10,560	-20
Unleaded	177,806	1,330	185,897	152	172,497	-22	171,883	-52	166,510	245	165,280	4
Finished Aviation Gasoline	1,976	4	1,947	-1	1,843	-39	1,830	-30	1,884	0	1,833	0
Jet Fuel	42,818	192	46,389	-3	48,938	421	46,844	-272	46,832	-60	47,255	3
Naphtha-Type Jet	6,381	4	6,336	1	7,082	-34	6,328	-29	6,853	0	6,969	0
Kerosene-Type Jet	36,437	188	40,053	-4	41,856	455	40,516	-243	39,979	-60	40,286	3
Kerosene	6,495	-60	5,693	-16	5,129	-16	5,194	0	5,501	0	5,071	0
Distillate Fuel Oil	117,949	-174	112,224	-464	99,684	-801	99,459	-258	102,828	335	109,392	466
Residual Fuel Oil	49,729	484	51,479	-261	46,190	117	48,993	-180	49,641	55	46,766	3
Naphtha Pet. Feedstock	2,106	-5	2,292	-5	2,322	0	2,220	0	1,993	0	1,849	3
Other Oils Pet. Feedstock	1,935	0	2,848	0	2,614	0	2,022	0	2,670	0	2,589	0
Special Naphthas	2,691	-94	2,844	-96	2,949	-4	2,699	-1	2,724	0	2,697	0
Lubricants	13,597	-12	13,011	-19	12,264	2	12,353	0	12,256	65	12,351	0
Waxes	953	-2	1,032	-1	1,044	0	955	0	941	0	901	0
Petroleum Coke	9,228	0	9,444	0	8,954	0	9,423	1	9,989	0	8,603	0
Asphalt and Road Oil	22,215	-40	25,957	103	28,519	303	29,873	-30	29,091	0	26,977	0
Miscellaneous Products	2,708	-480	2,785	-134	2,708	24	2,415	26	2,336	23	2,385	20
Product Supplied	**16,968**	**13**	**17,024**	**134**	**17,083**	**-2**	**16,666**	**104**	**16,843**	**13**	**17,112**	**52**
Crude Oil	40	0	36	0	24	0	24	0	30	0	29	0
Pentanes Plus	156	5	161	9	128	7	128	(s)	133	3	120	2
LPGs	1,660	-10	1,599	-26	1,620	-23	1,525	61	1,417	4	1,223	2
Ethane/Ethylene	462	(s)	431	-4	471	28	455	-5	495	(s)	456	(s)
Propane/Propylene	1,012	16	1,048	-12	993	-28	935	56	825	-1	626	(s)
Normal Butane/Butylene	163	-29	117	-40	113	-12	112	11	101	2	123	2
Isobutane	22	4	2	30	44	-11	23	(s)	-4	2	17	1
Other Hydrocarbons	0	-10	0	-5	0	5	0	0	0	-1	0	(s)
Unfinished Oils	-7	-23	-218	1	-219	17	-125	11	-161	-17	-247	58
Motor Gas. Blend. Comp	14	16	26	3	73	-6	51	1	119	-3	138	1
Aviation Gas. Blend. Comp.	0	0	2	0	(s)	0	0	0	0	0	0	0
Finished Motor Gasoline	6,675	-70	7,129	49	7,325	13	7,116	(s)	7,304	39	7,478	23
Leaded	404	-7	472	3	443	1	420	-3	421	(s)	420	(s)
Unleaded	6,272	-63	6,657	46	6,881	12	6,696	3	6,884	39	7,059	23
Finished Aviation Gasoline	19	(s)	23	(s)	24	1	23	(s)	27	-1	31	0
Jet Fuel	1,551	-1	1,468	18	1,423	-3	1,488	22	1,470	-3	1,456	-2
Naphtha-Type Jet	182	-1	203	-1	165	1	196	-1	182	-1	170	0
Kerosene-Type Jet	1,369	(s)	1,265	19	1,257	-4	1,292	23	1,288	-2	1,286	-2
Kerosene	113	2	130	-2	87	0	66	-1	41	0	50	0
Distillate Fuel Oil	3,177	3	3,250	10	3,265	12	3,059	-18	2,897	-17	2,949	-4
Residual Fuel Oil	1,561	33	1,424	49	1,202	-10	1,142	15	1,222	(s)	1,350	-49
Naphtha Pet. Feedstock	238	-50	237	-62	250	-49	184	0	201	0	148	17
Other Oils Pet. Feedstock	257	92	226	104	319	49	371	0	350	0	396	0
Special Naphthas	62	5	46	1	43	-3	73	1	71	-2	72	0
Lubricants	160	1	185	(s)	180	-1	147	(s)	153	11	138	2
Waxes	16	(s)	17	0	15	(s)	17	0	16	0	15	0
Petroleum Coke	346	2	332	0	336	0	291	(s)	295	(s)	317	0
Asphalt and Road Oil	223	1	211	-5	280	-6	351	11	540	-1	680	1
Still Gas	642	2	676	0	649	0	670	0	650	1	700	0
Miscellaneous Products	64	16	66	-12	58	-5	66	(s)	68	(s)	67	(s)

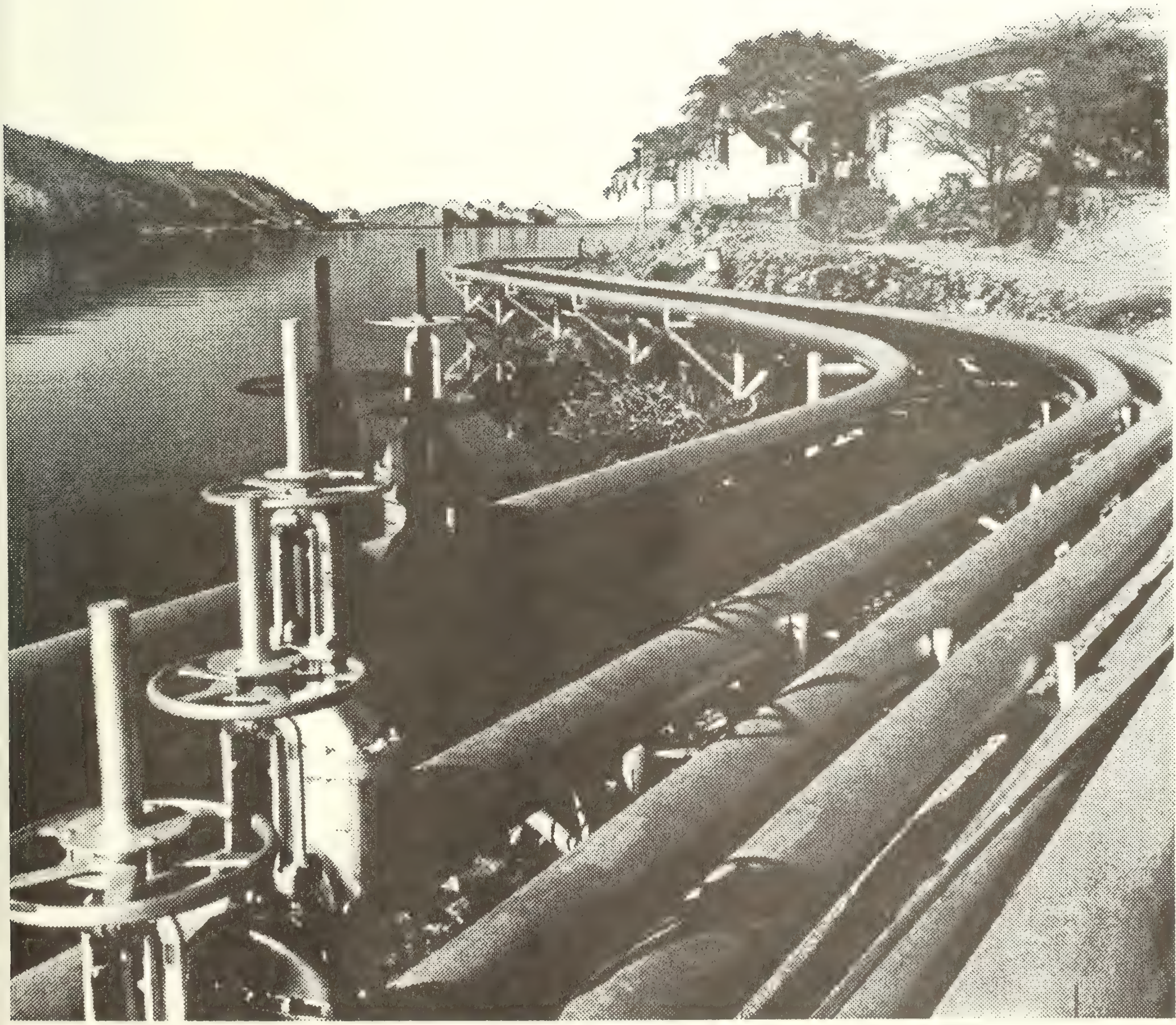
(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Table C1. Impact of Resubmissions on Major Series, 1990 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (Thousand Barrels)	1,123,959	326	--	--	--	--	--	--	--	--	--	--	-652
Crude Oil (excl. SPR)	379,518	8	--	--	--	--	--	--	--	--	--	--	-1,168
Pentanes Plus	8,731	-22	--	--	--	--	--	--	--	--	--	--	9
LPGs	112,289	279	--	--	--	--	--	--	--	--	--	--	485
Ethane/Ethylene	20,713	38	--	--	--	--	--	--	--	--	--	--	53
Propane/Propylene	48,930	142	--	--	--	--	--	--	--	--	--	--	457
Normal Butane/Butylene	32,665	61	--	--	--	--	--	--	--	--	--	--	22
Isobutane	9,981	38	--	--	--	--	--	--	--	--	--	--	-47
Other Hydrocarbons	1,342	0	--	--	--	--	--	--	--	--	--	--	44
Unfinished Oils	112,429	-3	--	--	--	--	--	--	--	--	--	--	-24
Motor Gas. Blend. Comp	38,993	0	--	--	--	--	--	--	--	--	--	--	-54
Aviation Gas. Blend. Comp.	142	0	--	--	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline	180,358	0	--	--	--	--	--	--	--	--	--	--	176
Leaded	10,589	0	--	--	--	--	--	--	--	--	--	--	-61
Unleaded	169,769	0	--	--	--	--	--	--	--	--	--	--	237
Finished Aviation Gasoline	1,672	0	--	--	--	--	--	--	--	--	--	--	-9
Jet Fuel	50,891	-3	--	--	--	--	--	--	--	--	--	--	40
Naphtha-Type Jet	6,334	0	--	--	--	--	--	--	--	--	--	--	-8
Kerosene-Type Jet	44,557	-3	--	--	--	--	--	--	--	--	--	--	48
Kerosene	5,957	24	--	--	--	--	--	--	--	--	--	--	-10
Distillate Fuel Oil	125,250	25	--	--	--	--	--	--	--	--	--	--	-124
Residual Fuel Oil	49,000	8	--	--	--	--	--	--	--	--	--	--	32
Naphtha Pet. Feedstock	1,813	8	--	--	--	--	--	--	--	--	--	--	(s)
Other Oils Pet. Feedstock	2,398	0	--	--	--	--	--	--	--	--	--	--	0
Special Naphthas	2,954	2	--	--	--	--	--	--	--	--	--	--	-28
Lubricants	13,052	0	--	--	--	--	--	--	--	--	--	--	5
Waxes	930	0	--	--	--	--	--	--	--	--	--	--	(s)
Petroleum Coke	7,527	0	--	--	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil	26,298	0	--	--	--	--	--	--	--	--	--	--	48
Miscellaneous Products	2,415	0	--	--	--	--	--	--	--	--	--	--	-74
Product Supplied	16,856	118	--	--	--	--	--	--	--	--	--	--	62
Crude Oil	31	0	--	--	--	--	--	--	--	--	--	--	0
Pentanes Plus	95	2	--	--	--	--	--	--	--	--	--	--	4
LPGs	1,379	-1	--	--	--	--	--	--	--	--	--	--	1
Ethane/Ethylene	507	(s)	--	--	--	--	--	--	--	--	--	--	3
Propane/Propylene	758	1	--	--	--	--	--	--	--	--	--	--	5
Normal Butane/Butylene	74	-2	--	--	--	--	--	--	--	--	--	--	-10
Isobutane	40	-1	--	--	--	--	--	--	--	--	--	--	3
Other Hydrocarbons	0	(s)	--	--	--	--	--	--	--	--	--	--	-1
Unfinished Oils	-230	(s)	--	--	--	--	--	--	--	--	--	--	7
Motor Gas. Blend. Comp	65	20	--	--	--	--	--	--	--	--	--	--	5
Aviation Gas. Blend. Comp.	(s)	0	--	--	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline	7,415	59	--	--	--	--	--	--	--	--	--	--	16
Leaded	403	-1	--	--	--	--	--	--	--	--	--	--	-1
Unleaded	7,012	60	--	--	--	--	--	--	--	--	--	--	17
Finished Aviation Gasoline	31	0	--	--	--	--	--	--	--	--	--	--	0
Jet Fuel	1,358	15	--	--	--	--	--	--	--	--	--	--	7
Naphtha-Type Jet	148	0	--	--	--	--	--	--	--	--	--	--	(s)
Kerosene-Type Jet	1,210	15	--	--	--	--	--	--	--	--	--	--	7
Kerosene	48	(s)	--	--	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil	2,693	22	--	--	--	--	--	--	--	--	--	--	1
Residual Fuel Oil	1,279	1	--	--	--	--	--	--	--	--	--	--	5
Naphtha Pet. Feedstock	218	(s)	--	--	--	--	--	--	--	--	--	--	-21
Other Oils Pet. Feedstock	446	0	--	--	--	--	--	--	--	--	--	--	35
Special Naphthas	43	(s)	--	--	--	--	--	--	--	--	--	--	(s)
Lubricants	150	0	--	--	--	--	--	--	--	--	--	--	2
Waxes	19	0	--	--	--	--	--	--	--	--	--	--	0
Petroleum Coke	329	0	--	--	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil	682	0	--	--	--	--	--	--	--	--	--	--	(s)
Still Gas	743	0	--	--	--	--	--	--	--	--	--	--	(s)
Miscellaneous Products	63	1	--	--	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.
Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication.

Glossary



Pipelines carry crude oil and petroleum products between refineries and ports.

Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH (e.g., methanol, ethanol, and tertiary butyl alcohol (TBA)).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it is calculated as follows:

$$\text{Degrees API} = \frac{141.5}{sp.gr.60^\circ F/60^\circ F} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600 F to 750 F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and alcohol.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

> the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;
>
> the types and grades of inputs to be processed;
>
> the types and grades of products expected to be manufactured;
>
> the environmental constraints associated with refinery operations;
>
> the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and
>
> the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene. An aromatic hydrocarbon, (C_6H_6), present to a minor degree in most crude oils. Some important

products manufactured from benzene are: styrene, phenol, nylon, aniline, and synthetic detergents.

Blending Plant. A facility which has no refining capability but is capable of producing finished motor gasoline through mechanical blending.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

> ***Isobutane.*** A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 F. It is extracted from natural gas or refinery gas streams.
>
> ***Normal Butane.*** A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

> ***Fresh Feeds.*** Crude oil or petroleum distillates which are being fed to processing units for the first time.
>
> ***Recycled Feeds.*** Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

> ***Low Pressure.*** A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.
>
> ***High Pressure.*** A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Crude Oil Used Directly. Represents the amount of crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 F at the 10-percent recovery point and 550 F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 F and 640 F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640F for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100 F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

Electricity (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on

the last day of the month. Primary stocks include crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plant pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in-transit by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

Ethane. A normally gaseous straight-chain hydrocarbon, (C2H6). It is a colorless paraffinic gas that boils at a temperature of -127.48 F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene. An olefinic hydrocarbon, (C2H4), recovered from refinery processes or petrochemical processes.

Exports. Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and alcohol or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

> 1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.
>
> 2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit to be reprocessed are not considered fresh feed.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units. Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons (such as shale oil, tar sand oils, gilsonite, etc.).

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651 F to 1000 F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Imports. Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico,

the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isohexane. A saturated branch-chain hydrocarbon, (C_6H_{14}). It is a colorless liquid that boils at a temperature of 156.2 F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane (C4), an alkylation process feedstock, and normal pentane and hexane into isopentane (C5) and isohexane (C6), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401 F at the 10-percent recovery point, a final boiling point of 572 F, and a minimum flash point of 100 F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400 F at the 10-percent recovery point and a final maximum boiling point of 572 F. The fuel is designated in ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401 F to 650 F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane butylene, and isobutane. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

> *Paraffinic.* Includes all grades of bright stock and neutrals with a Viscosity Index>75.
>
> *Naphthenic.* Includes all lubricating oil base stocks with a Viscosity Index<75
>
> *Note:* The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.
>
> *Exceptions:* Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.
>
> Example:
>
> (1) Unextracted pariffinic oils that would not meet the Viscosity Index test.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158 F at the 10-percent recovery point and from 365 to 374 F at the 90-percent recovery point. The Reid Vapor Pressure ranges from 9 to 15 psi. "Motor gasoline" includes finished leaded

gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g. straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogens, and alcohol.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 F.

Naphtha Less Than 401 F. See Petrochemical Feedstocks.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290 F at the 20-percent recovery point and 470 F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ramjet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Processing Plant. A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See Butane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle

capacity and is measured in barrels per calendar day or barrels per stream day.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. Includes hydrogen, coal tar derivatives, gilsonite, oxygenates, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Other Oils Equal To or Greater Than 401 F. See Petrochemical Feedstocks.

Oxygenates. Oxygenates include both alcohols and ethers used as octane boosting additives for gasoline (e.g., methyl tertiary butyl ether).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401 F" and "Other Oils Equal To or Greater Than 401 F."

> ***Naphtha Less Than 401 F.*** A naphtha with a boiling range of less than 401 F that is intended for use as a petrochemical feedstock.
>
> ***Other Oils Equal To or Greater Than 401 F.*** Oils with a boiling range equal to or greater than 401 F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which was established in 1942.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels per short ton.

> ***Marketable Coke.*** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.
>
> ***Catalyst Coke.*** In many catalytic operations (e.g., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline. Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus

imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane. A normally gaseous straight-chain hydrocarbon, (C3H8). It is a colorless paraffinic gas that boils at a temperature of -43.67 F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene. An olefinic hydrocarbon, (C3H6), recovered from refinery processes or petrochemical processes.

Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and alcohol, motor gasoline and aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. Refinery production of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids, other hydrocarbons and alcohol, and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000 F.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust pallative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6.000 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A nonmetallic element of lemon-yellow color, sometimes known as "brimstone".

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. In this publication, data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene. An aromatic hydrocarbon, ($C_6H_5CH_3$), somewhat similar to benzene but of a higher boiling point produced in the coking of coal and also by petroleum refining processes. It is the basis of dyes, explosives, and aromatic compounds. Along with xylene, it is a key component in unleaded gasoline.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics: Penetration at 77 F (D1321)-60 maximum. Viscosity at 210 F in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: Viscosity at 210 F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: Viscosity at 210 F (D88)-59.9 SUS (10.18 centistokes) maximum. Oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene. An aromatic hydrocarbon, ($C_6H_4Y(CH_3)_2$), produced in petroleum refining (cracking) processes. One important use is as a solvent in the manufacture of paints. Along with toluene, it is a key ingredient in unleaded gasoline.

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5. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher *(Not printer)*
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6. Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor *(This item MUST NOT be blank)*

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Editor *(Name and Complete Mailing Address)*
DIANE WHITED
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

Managing Editor *(Name and Complete Mailing Address)*
Patricia Jacobus
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

7. Owner *(If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) (Item must be completed.)*

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8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities *(If there are none, so state)*

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9. For Completion by Nonprofit Organizations Authorized To Mail at Special Rates *(DMM Section 423.12 only)*
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes *(Check one)*

(1) ☒ Has Not Changed During Preceding 12 Months
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10. Extent and Nature of Circulation *(See instructions on reverse side)*	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies *(Net Press Run)*	1874	1894
B. Paid and/or Requested Circulation 1. Sales through dealers and carriers, street vendors and counter sales	190	215
2. Mail Subscription *(Paid and/or requested)*	1565	1560
C. Total Paid and/or Requested Circulation *(Sum or 10B1 and 10B2)*	1755	1775
D. Free Distribution by Mail, Carrier or Other Means Samples, Complimentary, and Other Free Copies	0	0
E. Total Distribution *(Sum of C and D)*	1755	1775
F. Copies Not Distributed 1. Office use, left over, unaccounted, spoiled after printing	119	119
2. Return from News Agents	0	0
G. TOTAL *(Sum of E, F1 and 2—should equal net press run shown in A)*	1874	1894

11. I certify that the statements made by me above are correct and complete

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Mgnt. Analyst

PS Form 3526, Feb. 1989 *(See instructions on reverse)*

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